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Montana Power Company
The Montana Power Company long range plan

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THE MONTANA POWER COMPANY'S

LONG-RANGE PLAN

April 1, 1974

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THE MONTANA POWER COMPANY'S
LONG-RANGE PLAN
MONTANA UTILITY SITING ACT OF 1973

April 1, 1974

I. INTRODUCTION

Pursuant to Section 70-814 of the Montana Utility Siting Act of 1973, ("Act") The Montana Power Company hereby submits on April 1, 1974, to the Montana Department of Natural Resources and Conservation for its review The Montana Power Company's annual Long-Range Plan for the construction and operation of "Utility Facilities". "Utility Facilities" are defined in Section 70-802 of the "Act" to include certain energy-generating and conversion plants and associated facilities, certain electric transmission lines, and certain gas or liquid transmission lines from a gasification or liquefaction facility.

Section 70-814 of the "Act" requires that a utility's Long-Range Plan include:

(a) The general location, size and type of all utility facilities to be owned and operated by the utility whose construction is projected to commence during the ensuing ten (10) years, as well as those facilities to be removed from service during the planning period;

(b) A description of efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for meeting the utility needs of the region;

(c) A description of the efforts to involve environmental protection and land use planning agencies in the planning process, as well as other efforts to identify and minimize environmental problems at the earliest possible stage in the planning process;

(d) Projections of the demand for the service rendered by the utility and explanation of the basis for such projections, and a description of the manner and extent to which the proposed facilities will meet the projected demand; and

(e) Additional information that the department on its own initiative or upon the advice of interested state agencies might request in order to carry out the purposes of this act.

Certain sizeable Exhibits[1] submitted with The Montana Power Company's Long-Range Plan of last year on file with the

[1]These Exhibits include:
-Western Systems Coordinating Council, "Report on Significant Additions and Changes in System Facilities", Dec. 31, 1972.
-Western Systems Coordinating Council Reply to Federal Power Commission Docket R-362 "Reliability and Adequacy of Electric Service", April 1, 1972.
-Engineering Report Central Montana Joint Transmission Planning Study, January 1973.

Department of Natural Resources and Conservation and are incorporated and made a part of this year's Long-Range Plan.

Finally, it should be noted that the information in this Long-Range Plan represent the best efforts of the utility to set forth its plans and projections based on present knowledge, data and circumstances. Because present circumstances may unpredictably change, invariably the plans and projections set forth herein may also necessarily change.

II. THE GENERAL LOCATION, SIZE AND TYPE OF THE UTILITY FACILITIES TO BE OWNED AND OPERATED BY THE MONTANA POWER COMPANY WHOSE CONSTRUCTION IS PROJECTED, AS OF APRIL 1, 1974, TO COMMENCE DURING THE ENSUING TEN YEARS, AS WELL AS THOSE FACILITIES TO BE REMOVED FROM SERVICE DURING THE PLANNING PERIOD. (Section 70-814(1)(a))

A. Energy-generating and conversion plant and associated facilities.

There are two 350 megawatt coal-fired steam generation units with an associated water supply system now under construction by The Montana Power Company and Puget Sound Power & Light Company. The first 350 megawatt unit (Colstrip Unit No. 1) is scheduled for commercial operation in July of 1975, and the second 350 megawatt unit (Colstrip Unit No. 2) is scheduled for commercial operation in July of 1976. Units Nos. 1 and 2 will be jointly owned by The Montana Power Company and Puget Sound Power & Light Company.

Application for two 700 megawatt coal-fired steam generation units (Colstrip Unit Nos. 3 and 4) to be built at Colstrip, Montana was filed by The Montana Power Company along with Puget Sound Power & Light Company, Portland General Electric Company, The Washington Water Power Company and Pacific Power & Light Company, ("Applicants") on June 6, 1973. The Applicants requested that construction of Unit Nos. 3 and 4 be allowed to commence on or before May 1, 1974. The Applicants schedule commercial operation of Unit No. 3 to commence in July, 1978, and Unit No. 4 to commence in July, 1979. Unit Nos. 3 and 4 are tentatively planned to be owned 30 percent by The Montana Power Company; 25 percent by Puget Sound Power & Light Company; 20 percent by the Portland General Electric Company; 15 percent by The Washington Water Power Company; and 10 percent by the Pacific Power & Light Company.

If Unit Nos. 3 and 4 are not built as proposed by the Applicants, The Montana Power Company is considering construction of a third 350 megawatt or larger unit to be constructed at Colstrip

in 1979, and additional generation, probably gas turbines of 150 megawatt capacity, would be required somewhere on The Montana Power Company System to meet generation requirements by December, 1978.

The Montana Power Company and the Confederated Kootenai and Salish Tribes have filed application with the Federal Power Commission for the construction of two hydro-electric projects referred to as Buffalo Rapids No. 2 and Buffalo Rapids No. 4, to be located on the Flathead River in Sanders and Lake Counties, Montana.

The Pacific Northwest Power Company, of which The Montana Power Company is a participant, has also filed an application with the Federal Power Commission to construct a hydroelectric project referred to as the High Mountain Sheep Project, located on the Snake River between the States of Idaho and Oregon. If the Federal Power Commission issues a license to construct either or both of the aforementioned projects and said projects are otherwise approved, then The Montana Power Company would necessarily reevaluate its proposed facilities.

B. Electric transmission lines and associated facilities.

Application for a 230 kilovolt double circuit transmission line, as an associated facility of Unit Nos. 1 and 2, from Colstrip to Broadview was filed with the Department of Natural Resources and Conservation on June 29, 1973. The Applicants' request that construction be allowed to commence April 1, 1974.

If the two 700 megawatt generation units (Colstrip Unit Nos. 3 and 4) discussed in paragraph "A", ENERGY-GENERATING AND CONVERSION PLANTS AND ASSOCIATED FACILITIES, Supra, are constructed, two 500 kilovolt transmission lines will be constructed as associated facilities of Unit Nos. 3 and 4, extending from Colstrip generally through an area near Broadview, Montana, and through the Helena, Montana, area to Hot Springs, Montana. The 230 kV double circuit transmission line from Colstrip to Broadview mentioned above will be converted to one 500 kV transmission line in 1978, if Unit Nos. 3 and 4 are constructed.

If the two 700 megawatt plants are not constructed, the 500 kV transmission lines would not be constructed. Instead, the 230 kV double circuit transmission line from Colstrip to Broadview discussed above would remain to transmit power from Unit Nos. 1 and 2. In addition, a second Billings-Great Falls 230 kV line and a second Billings-Anaconda 230 kV line would have to be added for general system improvement. Also by July, 1979, if Unit Nos. 3 and 4 are not built as proposed by the Applicants, The Montana Power Company is considering construction of a third 350 megawatt or larger unit at Colstrip. This additional 350 megawatt generating unit would in turn probably require a fourth 230 kilovolt transmission line from Colstrip to some point in our system.

In addition to the proposed transmission associated with

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Colstrip generation, The Montana Power Company also plans to construct several electric transmission lines that will be necessary to maintain quality of service to our customers. These additional electric transmission lines are set forth on the attached "Projected Additions to Montana Power Company's Transmission System" marked Exhibit A. In reference to Exhibit A, the symbol "ss" in a particular column year indicates the date of survey work on the particular projects. The "xxxxx" symbol in a particular column year indicates the date in which actual construction is scheduled to occur on a particular project. (See Exhibit A attached.) Pursuant to the Department of Natural Resources and Conservation proposed regulations the estimated submission date of each expected application regarding electric transmission facilities is indicated on a quarterly basis, as set forth in Exhibit B.

III. A DESCRIPTION OF EFFORTS BY THE MONTANA POWER COMPANY TO COORDINATE ITS PLAN WITH OTHER UTILITIES SO AS TO PROVIDE A COORDINATE REGIONAL PLAN FOR MEETING THE UTILITY'S NEEDS OF THE REGION. (Section 70-814(1)(b) RCM 1947.)

In response to this statutory inquiry concerning coordinated regional planning some basic facts may be summarized:

(1) There is a great amount of cooperation among private and public utilities in the Pacific Northwest.

(2) There are many benefits to the participating utilities and their customers from such regional cooperation.

A. Cooperation among utilities.

Cooperation among utilities in the Pacific Northwest has historically evolved, and now is structured by various organizations and agreements. For example, these organizations and agreements include:

1. Western Systems Coordinating Council (WSCC).
2. Pacific Northwest Utility Conference Committee (PNUCC).
3. Joint Power Planning Council.
4. Pacific Northwest Power Pool.
5. Inter Company Pool Revised (ICPR).
6. Pacific Northwest Coordination Agreement.
7. Pacific Northwest Power Company
8. WEST Group.
9. Southwest Intertie.
10. Agreements with Public Power Marketing Agencies (for example, BPA, Bureau of Reclamation).

11. Agreements with particular utilities (for example, PUMI,ie, Pacific, Utah, Montana and Idaho).
12. Agreements with Montana Cooperatives, (for example, Central Montana Electric Generation and Transmission Cooperative).

The Western Systems Coordinating Council was organized August 4, 1967, to promote reliability of bulk power electric systems in the West. This assurance now includes adequacy of supply. Member electric systems now include 19 investor owned and 21 publicly or cooperative owned systems as well as 13 affiliated member electric systems. The area served includes 13 western states and Canada with a population of 26,000,000 in an area of approximately 1.9 million square miles.

The aim of the Council is to provide a formal means for exchange of data and information and to make regional studies and recommendations that will have favorable bearing on the reliability and adequacy of electric service in the West. Headed by an Executive Committee, the Council has four standing committees:

1. Planning Coordination Committee.
2. Operations Committee.
3. Environmental Committee.
4. Public Information Committee.

Western Systems Coordinating Council Agreement provides in part that each member of the Council shall inform the Executive Committee of its plan for generation or transmission additions which significantly effect the reliability of operation of the interconnected bulk power systems and shall report any decision as to alterations or changes proposed for their respective electric systems. Pursuant to this Agreement, The Montana Power Company and other utility members of the Western Systems Coordinating Council yearly report their significant changes and additions in their power systems including generation and transmission. This information from all member utilities is complied by the Western Systems Coordinating Council and distributed to all members of the Western Systems Coordinating Council. A copy of said report entitled "Report on Significant Additions and Changes in System Facilities" was submitted to the Department of Natural Resources and Conservation with Montana Power Company's last year's Long-Range Plan, and is incorporated and made a part hereof.

The Pacific Northwest Utility Conference Committee consists of 108 nonfederal public agencies and 5 private companies. Its purpose includes the study of loads and resources. The Montana Power Company attends the Committee's meeting although it is not a formal member.

The Joint Power Planning Council also works with regional loads and resources. The Montana Power Company is actively represented in the Council.

Members of the Pacific Northwest Power Pool conduct additional planning and design of power facilities in the Pacific Northwest. Members of the Power Pool often agree to participate in the cost and construction of particular facilities.

The Montana Power Company has worked with and has indicated its willingness to be a member of the Inter Company Pool Revised (ICPR). ICPR is expressly for planning loads and resources as well as economically and effeciently distributing secondary power.

The Pacific Northwest Coordination Agreement was reached after years of negotiation among private and public utilities on the mid-Columbia River System. Its principal purpose is to coordinate water releases to maximize hydrogeneration benefits.

The Pacific Northwest Power Company of which The Montana Power Company is a participant was formed to pursue development of hydrogeneration, such as the proposed High Mountain Sheep Project.

The Montana Power Company also cooperates with regional organizations outside the Pacific Northwest such as the WEST Group and the Southwest Intertie.

The Montana Power Company also consults actively with the Bonneville Power Administration and the Bureau of Reclamation in addition to having wheeling arrangements with them.

The Montana Power Company also has an agreement (referred to as AMPS) dated April 21, 1969 with individual utilities for the exchange of power and the sharing of transmission capacity when such transmission is not loaded. PUMI consisting of Pacific Power & Light Company, Utah Power & Light Company The Montana Power Company and Idaho Power Company, is an example of such cooperation.

The Montana Power Company also works with and has agreements with various cooperatives in Montana. For example, in 1972 representatives of the United States Bureau of Reclamation and Central Montana Electric Generation and Transmission Cooperative and The Montana Power Company conducted a study on transmission problems common to the three participants. As a result of this study, the three participants issued a report as a guide for future development of transmission systems within Central Montana. A copy of this study entitled, "Central Montana Joint Transmission Study", was submitted to the Department of Natural Resources and Conservation with Montana Power Company's last year's Long-Range Plan, and is incorporated and made a part hereof.

The possibility of cooperatives in Montana participating in generation projects with The Montana Power Company has also been explored.

B. Benefits from regional cooperation to participating utilities and their customers.

The objectives of these regional agreements and organizations include---

(1) Maximize the use of resources,
(2) Minimize the cost of energy to the utilities and to their customers,
(3) Provide reliability and better service to their customers, and
(4) Minimize environmental impact.

These objectives are studied and pursued in consideration of various climates, watersheds, time zones and type of loads, etc. of each utility in the region. The exchange of power among utilities and the point participation in construction and operation of facilities inures to all of these objectives.

For example, a utility, such as The Montana Power Company, presently in the region may have a deficiency over a period of years and can import power from another state and utility to meet such deficiencies. This exchange of power and joint participation keeps a utility from having to build several little facilities every time it has a slight increase in load demand. A utility may be an importer for a period of time, then it may be an exporter, and then in later years it again becomes an importer.

This exchange of power among utilities in the Northwest may also occur at certain times of the year and times of the day, because of the diversity of peak loads among utilities in this region.

Furthermore, regional cooperation and interconnected systems provide greater reliability to the customers of all regions. For example, if one utility's generation or transmission is out of service, another utility's facilties may help accommodate the utility with facilities out of service.

Furthermore, for the same amount of energy and service, the cost of construction and operation of fewer large facilities is less than the cost of construction and operation of many smaller facilities. This helps get energy to customers at the lowest possible rate.

Furthermore, fewer large facilities often have less environmental impact than many smaller facilities. For example, one larger transmission line may be built in lieu of several smaller transmission lines.

In summary, these objectives and resulting benefits of regional cooperation are in the interest of each utility and each of their customers. It is submitted that this regional cooperation is envisioned in siting legislation such as the Montana Utility Siting Act.

IV. A DESCRIPTION OF THE MONTANA POWER COMPANY'S EFFORTS TO INVOLVE ENVIRONMENTAL PROTECTION AND LAND USE PLANNING AGENCIES IN THE PLANNING PROCESS, AS WELL AS OTHER EFFORTS OF THE MONTANA POWER COMPANY TO IDENTIFY AND MINIMIZE ENVIRONMENTAL PROBLEMS AT THE EARLIEST POSSIBLE STAGE IN THE PLANNING PROCESS. (Section 70-814(1)(c))

The Montana Power Company's policy and practice are to communicate and cooperate with state and federal agencies on all energy environmental matters to the extent practicable.

Montana Power Company has advised the Regional Forest Service and the Bureau of Land Management that The Montana Power Company is interested in land use planning and has requested participation and that Montana Power Company wishes to continue to take part in such planning. See copy of letters to the Regional Forester marked Exhibit C and the copy of letter to the Bureau of Land Management marked Exhibit D.

On the Colstrip Project in particular, The Montana Power Company directly and through its contractor, Westinghouse Environmental Department, has contacted numerous state and federal officials and agencies. A list of most of the federal agencies contacted in regard to the Colstrip Project is listed on Exhibit E, and a list of the state agencies contacted in regard to the Colstrip is listed on Exhibit F.

V. PROJECTIONS OF THE DEMAND FOR SERVICES RENDERED BY THE MONTANA POWER COMPANY AND EXPLANATION OF THE BASIS FOR SUCH PROJECTIONS, AND A DESCRIPTION OF THE MANNER AND EXTENT TO WHICH THE PROPOSED FACILITIES WILL MEET THE PROJECTED DEMAND. (70-814(1)(d))

There are always some uncertainties in energy forecasting and a tendency to impute a declining growth rate into forecasts of electricity reqirements. This year, with talk of energy conservation, is no exception. However, forecasting in the electric utility industry and in The Montana Power Company is not done cavalierly. It is based on sound historical data and on proven measured relationships between consumption and major economic indices as well as efforts to come to grips with contemporary underlying causes of energy consumption. It can be noted that the National Power Survey stated that almost invariably utility long-range forecasts are low.[2]

[2]A Critique of Projects in the Electric Power Industry, Thomas H. Burbank, EEI Bulletin, March-April 1973, p. 67.

Although over the years the electric utility industry forecasting has been remarkedly accurate.

In 1958 and 1959 the Edison Electric Institute, the principal national trade association of the Investor-Owned Power Companies made a forecast of all of the electrical energy uses in the United States through the Year 2000. All pertinent correlations were taken into account.

Many other factors were also studied, including world patterns of energy, U. S. patterns of all raw fuels, competition from raw fuels, trends in self-generation, costs of the new fuels such as with the nuclear plants and the breeders, probable continued improvements in technology, probably new uses of energy and the like.

Every year since then, the forecast has been re-examined to determine whether any changes were warranted. Each year since 1959 the actual cumulative use of energy has been within 1%, up or down, of the forecast. No change in forecast has been made in 13 years. The cumulative error as of 1972 was about 1%.

The long-term study of the Edison Electric Institute shows that the rate of growth in 1900 was about 12%. It is 7.1% now. It will be 6.3% in 2000. Forecasters of the federal government and the electric industry expect the demand for electricity to continue to grow at an annual national average rate of 7% a year with a doubling every ten years.[3]

The Montana Power Company's electric energy demand is expected to continue to increase at least at its present 5-6% annual rate of increase. This projection is based on and is consistent with national projections, historical experience in Montana and particular, known factors about Montana's future supply and demand.

The Montana Power Company's loads and resources as of January 1974 are shown on the attached "Winter 1973-74 Loads and Resources" marked Exhibit G. It is important to note that this chart shows that The Montana Power Company's System has a generation capability of 768 megawatts and that The Montana Power Company imports 192 megawatts from other utilities. The chart shows a total peak load of 883 megawatts.

The Montana Power Company's most recent load forecast, dated February 1, 1974, is attached hereto as Exhibit H. The February 1, 1974, forecast is not a completely new forecast but is an adjustment and updating of earlier forecasts reflecting anticipated additions and reductions in loads.

[3] "The Economy, Energy, and the Environment", A Background Study Joint Economic Committee, Congress of the United States, 1970, p.9.

It is obvious that The Montana Power Company's self-generated resource capability of 768 megawatts as shown on Exhibit G, would not be sufficient to meet projected loads as shown on Exhibit H.

The Montana Power Company projected loads and resources are shown on the attached Exhibit I.

Monthly loads and resources, for both peak and energy requirements, are shown on the attached computerized charts marked Exhibits J and K.

Each year The Montana Power Company updates various graphs showing changes in electrical demand at each of its approximately 600 substations throughout its service area. The points plotted on the graph represent the peak electrical demand which occurred during the period July 1 to June 30 of the following year -- i.e. the point plotted for 1972 represents the time period July 1, 1972 to June 30, 1973. Whenever data is available for customers and kilowatt hours, these points are also plotted. An example of these graphs is attached hereto as Exhibit L . The data to plot the yearly points on Exhibit L discussed above is obtained on a monthly basis. For each point plotted, data is recorded on a monthly basis for the primary purpose of monitoring electrical equipment capabilities. For an example of this monthly monitoring see Exhibit M attached.

Projections based on these yearly and montly drafts of changes in energy demand are then made on graphs to determine what expansion programs on the system are necessary. Expansion programs may mean increasing transformer size or capability, adding additional transformers, or building new substations. Care must be exercised when examining load growth graphs.

New substations or a shifting of loads from substation to substation or transformer to transformer may given erroneous impressions of actual area growth. A careful analysis of changes which have taken place is necessary to determine actual load growth in an area. To establish load growth rates, many factors must be considered and analyzed. Weather conditions, extended outages, switching of loads, construction procedures, industrial and commercial development, urban development, development of residental subdivisions, irrigation and pumping, and air conditioning requirements are some of these factors which must be considered as they may effect load growth rates.

When accurate substation growth rates are determined based on these graphs and any changes are factored into the graph for such factors as discussed above then accurate substation growth rates can be determined. When these accurate substation growth rates are determined then "load flow" computer programs are used as an aid in determining transmission line requirements.

When it appears that additional transmission lines are needed based on these monthly and yearly load change graphs and all of the many other factors such as weather conditions, extended outages, switching of loads, industrial and commercial development, urban development, irrigation and pumping, etc. have been analyzed and factored into the graph then more detailed studies of transmission line requirements are made. From these drafts and other factors it may be indicated that an additional transmission line is needed in a particular area. For example, such studies in the Yellowstone National Park, Big Sky Project Area and the Sheridan-Ennis Area, indicated that additional transmission lines were necessary. When such transmission appears needed in a particular area or areas, then more detailed studies are made. A copy of more detailed studies of load growth in the Yellowstone National Park, Big Sky Project Area, and the Sheridan-Ennis Area are attached hereto as Exhibit N, as an example of such more detailed studies.

In addition to the continuous monitoring of the entire system by monthly and yearly load growth graphs, The Montana Power Company also takes into consideration anticipated or trends in types of load growth. For example, The Montana Power Company must consider the possible addition of such loads as 20-25 megawatts at Hoerner-Waldorf's in approximately 1977, and an approximate 18 megawatt addition at U.S. Plywood in mid-1975, and an additional 25 megawatts at the Ferrio-Chrome operation at Nye, Montana, and the possible approximate 15 megawatt additional load for metal re-cycling at Conrad, Montana.

The Montana Power Company also has to anticipate that certain uses of electricity will create substantial additions to its load demand. For example, the use of electricity for irrigation and sprinkling is estimated to sizeably increase, as shown on the attached Exhibit marked O.

As said at the outset, projection of energy requirements and the need for new utility facilities is subject to some uncertainties. However, as evidenced by the above discussions, such projections are not done cavalierly by The Montana Power Company. Rather such projections are done by looking at past history, what is happening now in different parts of the state and at known future requirements of our customers. The Montana Power Company makes load forecast in attempt to balance electric resources against this load forecast. This is done on both a peak and energy basis. As suggested above, electric load varies from month to month throughout the year, and from day to day and from morning until night. The Montana Power Company studies must also include consideration of reserves that are required to make sure that the Company can serve our firm load at all times. The studies must also take into account required down-time of plants and facilities for maintenance and contracts of exchange with other utilities.

Obviously a load forecast and projection of needed facilities takes a lot of time and involves a lot of detail. The net results of such study is to indicate when The Montana Power Company will be short of power over its entire system or in part of its system and when a new source of generation or transmission is needed. When it is determined that a new source of generation or transmission is needed then The Montana Power Company considers the alternatives for meeting these requirements and makes further detailed studies on the need for the facility. Such studies may be conducted in cooperation with other utilities in the region. It should be pointed out that such studies by The Montana Power Company are somewhat different from similar studies in other industries in that in the utility business, a utility has no choice of not building when facilities are required, because it is the utility's responsibility to provide adequate and reliable service to its customers.

The general size and type of utility facilities to be owned and operated by The Montana Power Company which were discussed in part II of this Long-Range Plan are a result of all of these studies and considerations regarding the projection of demand of services rendered by The Montana Power Company. If the facilities as proposed in part II of this Long-Range Plan are allowed to be built as scheduled by the utility, such facilities should adequately meet the projected demand for the service rendered by The Montana Power Company.

EXHIBITS SUBMITTED WITH LONG-RANGE PLAN

April 1, 1974

EXHIBIT	TITLE
A	Scheduled Electric Transmission Lines.
B	Proposed Filing Dates for Montana Power Company Transmission Projects, 1974-1983.
C	Letter to Regional Forester dated April 23, 1973.
D	Letter to Bureau of Land Management dated May 8, 1973.
E	List of Federal Agencies contacted with regard to the Colstrip Project.
F	List of State Agencies contacted with regard to the Colstrip Project.
G	Winter 1973-74 Loads and Resources, January 1974 for The Montana Power Company.
H	The Montana Power Company Adjusted Firm Load Estimate.
I	The Montana Power Company Load and Resource Summary (RCS 2/1/74 Computer Tabulation).
J	The Montana Power Company Peak Requirements.
K	The Montana Power Company Energy Requirements.
L	Graph of Electrical Demand Changes.
M	Monthly Substation Report.
N	Study of Need for Additional Transmission Facilities in the Upper Yellowstone Valley Area (including Yellowstone Park and the town of Gardiner) and the Big Sky Resort Area.
O	Historical Sprinkler Irrigation Growth.

A

EXHIBIT "A"
Scheduled Electric Transmission Lines

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Anaconda-Hamilton 161 kV Line	ss	ss	xxxxx								
Billings-Great Falls 230 kV Line	xxxxx	xxxxx									
Broadview-Alkali Creek 230 kV Line	ss	xxxxx									
Mill Creek-Electric Furnace Arbiter 230 kV Line	xxxxx										
Clyde Park-Bozeman 161 kV "B" Line	ss	xxxxx									
Benchland-Glengarry 100 kV "B" Line	ss	xxxxx									
Chance-Belfry 50 kV Line		ss	xxxxx								
Colstrip-Nichols 115 kV Line	xxxxx										
Clyde Park 161 kV Tie Line	ss	xxxxx									
Great Falls-Conrad 115 kV "B" Line				ss	xxxxx						
Billings-Continental Oil 100 kV Loop Line	ss	xxxxx									
Clyde Park-Dillon Salmon 161 kV Line	ss	ssxxx	xxxxx								
Missoula-Hamilton 161 kV Line	xxxxx										
Laurel-Billings 8th St. 100 kV Line	xxxxx										
Ulm 100 kV Rodial Line	ss	xxxxx									
Billings-Roundup 100 kV Line			ss	xxxxx							

ss = Indicates date of survey work
xxxxx - Indicates date of construction

B

EXHIBIT "B"

PROPOSED FILING DATES FOR MONTANA

POWER CO. TRANSMISSION PROJECTS

1974-1983

Year	Quarter	Project
1974	2nd	Anaconda-Hamilton 161 kV Line
1974	2nd	Mill Creek-Electric Furnace Arbiter 230 kV Line
1974	2nd	Clyde Park-Bozeman 161 kV "B" Line
1974	2nd	Benchland-Glengarry 100 kV "B" Line
1974	2nd	Clyde Park 161 kV Tie Line
1974	2nd	Clyde Park-Dillon Salmon 161 kV Line
1974	2nd	Ulm 100 kV Radial Line
1974	2nd	Broadview-Alkali Creek 230 kV Line
1974	2nd	Billings-Continental Oil 100 kV Loop Line
1975	1st	Great Falls-Conrad 115 kV "B" Line

C

EXHIBIT "C"

The MONTANA POWER COMPANY

GENERAL OFFICES
ELECTRIC BUILDING
BUTTE, MONTANA 59701

April 23, 1973

Regional Forester
Northern Region Federal
Building
Missoula, MT 59801

Dear Sir:

The Montana Power Company is interested in land-use planning and the planning unit proposals of various forests throughout Montana. The Montana Power Company has participated in the land-use planning of some forests in the past and wishes to continue to take part in such planning. Therefore, will you please keep Mr. Carl Anderson of our Company informed regarding land-use planning in any of the forests throughout Montana.

Thank you.

Sincerely,

John Ross
Environmental Attorney

JWR:mcs

cc: All Northern Region Supervisors

bcc: Bill Coldiron
Carl Anderson
Jim Couture
Don Olson

D

EXHIBIT "D"

The MONTANA POWER COMPANY

GENERAL OFFICES
ELECTRIC BUILDING
BUTTE, MONTANA 59701

May 8, 1973

Bureau of Land Management
State Office
3021 6th Ave. North
Billings, MT 59101

Dear Sir:

The Montana Power Company is interested in land-use planning and the planning unit proposals of the Bureau of Land Management throughout Montana. The Montana Power Company has participated in the land-use planning of some Districts in the past and wishes to continue to take part in such planning. Therefore, will you please keep Mr. Carl Anderson of our Company informed regarding land-use planning in any of your Districts in Montana.

Thank you.

Sincerely,

John Ross
Environmental Attorney

JWR:mcs

cc: All BLM Districts in Montana

bcc: Bill Coldiron
Carl Anderson
Jim Couture
Don Olson

E

EXHIBIT "E"

Federal Contacts

Department of Agriculture - T. C. Byerly, Office of the Secretary

Forest Service

Barry R. Flamm - Programs & Legislation Hqts.
Milo Jean Hassel - Programs & Legislation Hqts.
Melvin E. Loveridge - Division of Recreation Hqts.
Steve Yurich - Regional Forester
Keith Thompson - Regional Office Missoula
William A. Worf - Recreation and Lands, Regional Office
Vincent R. Price - Recreation and Lands, Regional Office
Gerald J. Contant - Recreation and Lands, Regional Office
Carl W. Wetterstrom - Water Storage Impacts, Regional Office
George N. Engler - Forest Supervisor, Lewis & Clark National Forest

Department of the Interior

Headquarters

Bruce Blanchard - Director, Environmental Project Review
Ernest E. Sligh - Office of Environmental Project Review
Daniel A. Jones - Bureau of Land Management
Henry J. Geiko - Bureau of Land Management
John E. Moon - Bureau of Land Management
Russell A. Soulen - Bureau of Outdoor Recreation
L. D. Norman - Bureau of Mines
Frank E. Clarke - U. S. Geological Survey
David E. Clark - National Park Service
Elwood A. Seaman - Assistant for Ecology, Commissioner of Reclamation

Field

Bureau of Land Management

Ed Montgomery - Denver
Edwin Zeidlicz - State Director
Ernest Kemmis - Montana State Office
Eugene H. Newell - Montana State Office
C. Rex Cleary - District Manager Billings District
Duane Sonnenburg - Area Manager

Bureau of Reclamation

Philip Q. Gibbs - Billings - Regional Office

U. S. Geological Survey

George M. Pike - District Chief - Helena
Ronald Shields - District Office - Helena
L. Grady Moore - District Office - Helena
Fern Aagaard - District Office - Helena

Bureau of Sport Fisheries and Wildlife

John Vander Walker - Environmental Coordinator - Denver Offic

Environmental Protection Agency

Headquarters

Sheldon Myers - Office of Federal Activities
William Meggonell - Stationary Source Enforcement Division

National Environmental Research Center

Jean J. Schueneman - Director, Control Program Development Division
Edward J. Lillis - Control Program Development Division
David K. Berry - Control Program Development Division

Regional Headquarters - Denver

Donald P. Dubois - Deputy Administrator
Charles W. Murray - Director, Air and Water Programs

Federal Power Commission

Richard F. Hill - Advisor on Environmental Quality

F

EXHIBIT "F"

STATE AGENCIES

Environmental Quality Council

Chairman, Representative - Sen. Flynn (Missoula)
Ex. Director - Fletcher E. Newby
Contact - Fletcher E. Newby April 10, 1973

Fish and Game Department

Director - Wesley R. Woodgerd
Contacts - Wesley R. Woodgerd
James A. Posewitz - Environment and Information Chief

Department of Health and Environmental Sciences

Director - John S. Anderson

Environmental Sciences Division
Administrator - Benjamin F. Wake
Contact - Benjamin F. Wake

Air Quality Bureau
Chief - Donald R. Holtz
Contact - Donald R. Holtz

Water Quality Bureau
Chief - Donald G. Willems
Contact - Donald G. Willems

Department of Inter-Governmental Relations

Director - Ron Richards

Planning and Economic Development
Administration Division
Executive Director - Perry F. Roys

Community Development Division
Director - Harold M. Price
Contacts - Associate Planner-
Jim E. Richard

Economic Development Division
Director - William M. Spilker
Contact - William M. Spilker

Information Systems Division
Director - R. Thomas Dundas, Jr.

Research Division
Director - C. R. Draper
Contact - Research Assistant -
Gordon Jackson

Department of Natural Resources and Conservation

Director - Gary J. Wicks
Deputy Director - Ted J. Doney
Environmental and Legal Affairs -
Lawrence M. Jakub
Contacts: Mr. Doney and Mr. Jakub

Conservation Districts Division
Forestry Division
Oil and Gas Conservation Division

Water Resources Division
Administrator - Grant W. Buswell
Geologist - James Halloran
Economist - James Nybo
Groundwater Rights Coordinator -
Ronald Guse
Hydraulics Engineer - Charles Parrett
Surface Water Rights Coordinator -
Hans Bille

Engineering Bureau
Chief - Orrin Ferris

Resources and Planning Bureau
Chief - John Acord

Department of State Lands

Commissioner - Ted Schwinden
Land Administration
Administrator - Robert Raundal

Reclamation Division

Administrator - John Goers
Contact: John Goers

Resource Development Division

Administrator - Robert Duncan

G

EXHIBIT "G"

WINTER 1973-74 LOADS AND RESOURCES
January 1974
(Megawatts)

RESOURCES			FORECASTED LOAD	
Hydro	518			
Corette	180			
Bird	70			
MPCO. Generation		768		
CONTRACTS:				
BPA	50			
Wheeling	6			
WWP*	10			
WWP (Hanford Trade)	78			
WWP (Hanford Trade)	-38			
PUMI	97			
Utah	30			
Puget	-78			
Hanford	37			
Net Imports		192		
TOTAL RESOURCES		960		
Less Maintenance		0		
Less Forced Outage Reserves		87	Firm Peak Load	863
Interruptible in Reserves		-20	Interruptible Load	20
Net Resources for MPCo Load		893	Total Load	883

893 Megawatts represents a 1.1% margin over the forecasted total load of 883 megawatts. i.e. $\frac{893-883}{883} = 1.1\%$

In addition to the above resources of 893 megawatts, our transmission lines must be able to carry an additional load of approximately 53 megawatts which represents BPA and USBR Coop loads that are wheeled over our lines.

*Washington Water Power Company

MONTANA POWER COMPANY

DCS
2/1/74

ADJUSTED FIRM LOAD ESTIMATE

MW

YEAR	JAN AV.	JAN PK.	FEB AV.	FEB PK.	MAR AV.	MAR PK.	APR AV.	APR PK.	MAY AV.	MAY PK.	JUN AV.	JUN PK.	JUL AV.	JUL PK.	AUG AV.	AUG PK.	SEP AV.	SEP PK.	OCT AV.	OCT PK.	NOV AV.	NOV PK.	DEC AV.	DEC PK.	ANNUAL DATA AV.	ANNUAL DATA PK.	OPERATING YEAR	OPERATING YEAR AV.	OPERATING YEAR PK.
1974	648	863	612	794	601	774	578	721	568	720	579	737	596	780	595	764	603	750	616	798	647	867	693	949	612	948	1974-75	645	953
1975	718	953	679	881	663	860	643	803	632	812	645	821	694	886	690	865	677	821	686	872	720	945	779	1037	686	1037	1975-76	723	1037
1976	795	1037	754	962	743	940	716	878	704	878	719	899	723	925	719	905	700	853	714	909	750	984	814	1084	738	1084	1976-77	754	1084
1977	832	1084	787	1006	774	983	747	917	735	917	751	940	754	963	750	945	729	887	743	946	782	1025	850	1134	770	1134	1977-78	786	1134
1978	869	1134	820	1052	803	1029	779	957	766	958	784	983	786	1012	782	983	753	922	772	985	815	1068	888	1187	802	1187	1978-79	820	1187
1979	909	1187	856	1101	845	1079	814	1001	799	1002	819	1029	820	1060	816	1035	787	960	804	1027	850	1114	930	1242	838	1242	1979-80	857	1242
1980	953	1242	895	1152	884	1128	851	1045	835	1047	857	1077	855	1108	852	1082	824	998	839	1069	888	1161	973	1300	876	1300	1980-81	895	1300
1981	997	1300	935	1206	924	1182	889	1091	872	1095	896	1129	894	1161	890	1137	859	1037	873	1115	926	1211	1018	1362	914	1362	1981-82	935	1362
1982	1044	1362	977	1264	966	1239	929	1143	911	1146	937	1182	933	1215	929	1187	895	1082	913	1163	967	1264	1066	1426	955	1426	1982-83	978	1426
1983	1094	1426	1022	1324	1011	1298	971	1195	953	1199	981	1233	975	1273	971	1243	934	1127	949	1213	1010	1318	1117	1494	999	1494	1983-84	1023	1494
1984	1147	1494	1069	1387	1059	1361	1016	1251	996	1255	1029	1293	1019	1334	1015	1302	975	1174	989	1265	1055	1376	1170	1565	1045	1565	1984-85	1069	1565

EXHIBIT "H"

MONTANA POWER COMPANY
LOAD AND RESOURCE SUMMARY
(RCS 2/1/74 Computer Tabulation)

Winter Peak (Jan. or Dec.)
Operating Year Average

RCS 2/25/74

	1973-74		1974-75		1975-76		1976-77		1977-78		1978-79		1979-80	
	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV
Resources - Critical Water	960	553	1035	639	1122	692	1191	812	1191	855	1402	1030	1614	1232
Adjusted Firm Load	863	588	953	645	1037	723	1084	754	1134	786	1187	820	1242	857
Surplus or (Deficiency)	10	(52)	(5)	(24)	(47)	(51)	(46)	28	(96)	39	30	168	155	321
Reserves Included	87	12	87	12	132	21	153	30	153	30	185	42	217	54
Maintenance Included	0	16	0	12	0	31	8	43	8	39	8	43	8	58
Interruptible	20	17	21	18	21	19	24	20	25	21	26	22	28	23
Median Water Adder	-	48	-	48	-	48	-	50	-	51	-	51	-	51
Bird Included	70	6	70	6	70	12	70	18	70	12	70	15	70	20

	1980-81		1981-82		1982-83		1983-84		1984-85		1985-86		1986-87	
	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV	PK	AV
Resources - Critical Water	1648	1323	1648	1331	1649	1326	1649	1327	1649	1327	1650	1328	1650	1328
Adjusted Firm Load	1300	895	1362	935	1426	978	1494	1023	1565	1069	1641	1118	1721	1170
Surplus or (Deficiency)	131	374	69	341	6	295	(62)	251	(133)	204	(208)	156	(288)	104
Reserves Included	217	54	217	54	217	54	217	54	217	54	217	54	217	54
Maintenance Included	8	64	8	54	8	62	8	62	8	62	8	62	8	62
Interruptible	29	24	31	25	32	27	34	28	36	30	38	31	40	33
Median Water Adder	-	51	-	51	-	51	-	51	-	51	-	51	-	51
Bird Included	70	23	70	20	70	23	70	23	70	23	70	23	70	23

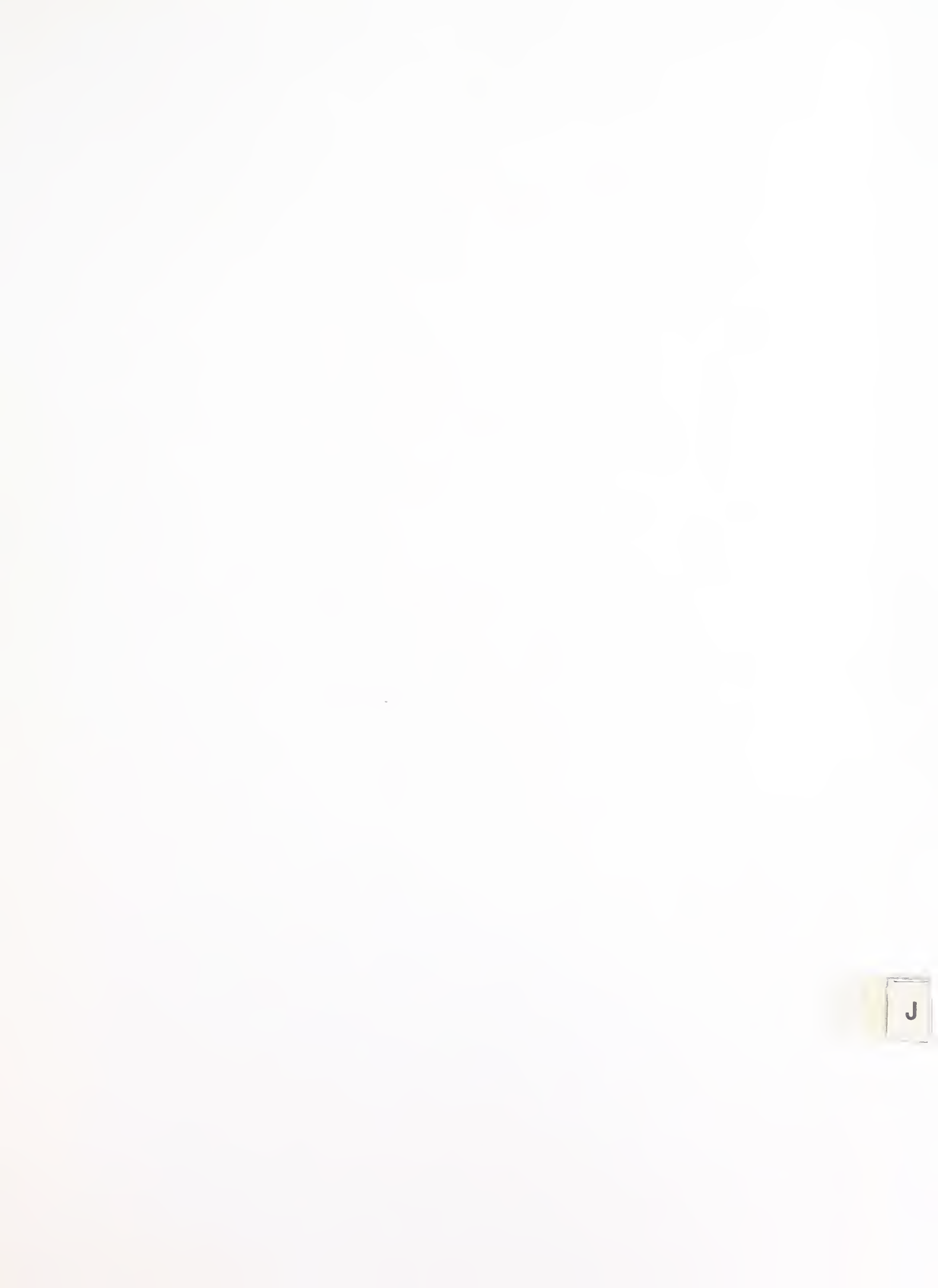
1. Resources assume critical water with maintenance deducted. All Colstrip generation is included and is "on time".

2. Adjusted Firm Load is from RCS 2/1/74 Adjusted Firm Load Forecast.

3. Median Water Adder includes adjustment for Great Falls; also for Thompson Falls until tainter gates are installed.

4. Average energy includes energy from Bird only when Corette and Colstrip Units are down for scheduled maintenance.

EXHIBIT "I"


J

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1973-74	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB1	FEB2	MAR1	MAR2	APR1	APR2	MAY	JUN
*1 FIRM PEAK LOAD	734	715	681	681	727	788	862	863	794	794	774	774	721	721	720	737
RESOURCES *3 *4																
HYDRO	518	520	520	520	519	519	519	518	512	512	513	513	513	513	513	513
T FALLS ADJ	-15														-15	-15
G FALLS ADJ																-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
DIESEL	3	3	3	3	3										3	3
BPA=50+WHEELING	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
*2 OFFSETS		110	110	110												
WWP						10	10	10	10	10	10	10	25	25		125
WWP (HAN TRADE)	103	103	78	78	78	78	78	78	78	78	78	78	78	78	78	78
WWP (HAN TRADE)	-50	-50	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38
PAC (PUMI)	9	9	9	9	97	97	97	97	97	97	97	97		30	30	30
UTAH (TRADE #1)	-30	-30	-15				30	30	15							
PUGET							-72	-73								
*5 HANFORD	98	98	37	37	37	37	37	37	37	37	37	37	37	37	37	37
TOTAL RESOURCES	942	1069	1010	1025	1002	1009	967	960	1017	1002	1003	1003	921	951	914	1029
SURP OVER FIRM LOAD	208	354	329	344	275	221	105	97	223	208	229	229	200	230	194	292
RESERVES	82	82	82	82	82	82	87	87	87	87	87	87	87	87	87	87
INTERUP IN ABOVE RES	19	19	19	19	19	19	19	20	20	20	20	20	20	20	20	20
SURP OVER FIRM=TOTAL LOAD AND RESERVES	126	272	247	262	193	139	18	10	136	121	142	142	113	143	107	205
MAINTENANCE		27	70	70	12	12			16	16	78	82	72	15	15	180
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	126	245	177	192	181	127	18	10	120	105	64	60	41	128	92	25
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1974-75	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY1	MAY2	JUN1	JUN2
*1 FIRM PEAK LOAD	780	764	750	798	867	948	953	881	860	803	802	802	821	821
RESOURCES *3 *4														
HYDRO	518	520	520	519	519	519	518	512	513	513	513	513	513	513
T FALLS ADJ	-15										-15	-15	-15	-15
G FALLS ADJ													-10	-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
DIESEL	3	3	3	3							3	3	3	3
BPA=50+WHEELING	56	56	56	56	56	56	56	56	56	56	56	56	56	56
*2 OFFSETS		110	110											
WWP					30	30	30	30	30					
WWP(HAN TRADE)	78	78	31	31	31	31	31	31	31	31	31	31	31	31
WWP(HAN TRADE)	-38	-38	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15
PAC (PUMI)	30	30	30											
UTAH(TRADE H2)				17	27	100	100	59	33					
UTAH(TRADE H3)						40	40							-30
PUGET				11	80			60	80	120	175	55	60	100
*5 HANFORD	37	37	31	31	31	31	25	25	25	25	25	25	25	25
TOTAL RESOURCES	919	1046	1016	903	1009	1042	1035	1003	1003	930	1023	903	898	908
SURP OVER FIRM LOAD	139	282	266	105	142	94	82	127	143	177	221	101	77	87
RESERVES	87	87	87	87	87	87	87	87	87	87	87	87	87	87
INTERUP IN ABOVE RES	20	20	20	20	20	20	21	21	21	21	21	21	21	21
SURP OVER FIRM+TOTAL LOAD AND RESERVES	52	195	179	18	55	7	-5	40	56	90	134	14	-10	
MAINTENANCE	24	58	70	11	12			14	13	58	180	195	15	13
SURP OVER FIRM+TOTAL LOAD,RES,AND MAINT	29	137	109	7	43	7	-5	26	43	32	-46	-181	-25	-13
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20		-20	-40	-40
HANFORD 5-MILL ADDER AVAIL 38 DAYS OF 42			84	84	84	84	84	84	84	84	84	84	84	84

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1975-76	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY1	MAY2	JUN1	JUN2
*1 FIRM PEAK LOAD	886	866	821	821	872	945	1037	1037	962	940	878	878	878	899	899
RESOURCES *3 *4															
HYDRO	518	520	520	520	519	519	519	519	512	513	513	513	513	513	513
T FALLS ADJ	-15											-15	-15	-15	-15
G FALLS ADJ														-10	-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
DIESEL	3	3	3	3	3							3	3	3	3
BPA=50+WHEELING	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
*2 OFFSETS		110	110	110											
WWP						30	30	30	30	30					
WWP (HAN TRADE)	31	31													
WWP (HAN TRADE)	-15	-15													
UTAH(TRADE H31	-30	-30					60	60	25						-60
PUGET	40							19				120	120	130	180
*5 HANFORD	25	25	42	42	42	42	42	42	42	42	42	42	42	42	42
TOTAL RESOURCES	1028	1115	1146	1146	1035	1062	1122	1140	1080	1056	1026	1134	1134	1134	1124
SURP OVER FIRM LOAD	142	249	325	325	163	117	85	103	118	116	148	256	256	235	225
RESERVES	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132
INTERUP IN ABOVE RES	21	21	21	21	21	21	21	22	22	22	22	22	22	22	22
SURP OVER FIRM=TOTAL LOAD AND RESERVES	10	117	193	193	31	-15	-47	-29	-14	-16	16	124	124	103	93
MAINTENANCE	10	27	66	66	70	12		11	17	20	66	180	165	165	165
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT		90	127	127	-39	-27	-47	-40	-31	-36	-50	-55	-41	-62	-72
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20		-20	-40	-40
HANFORD 5-MILL ADDER AVAIL 38 DAYS OF 42	84	84													

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 OV

1976-77	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY	JUN
*1 FIRM PEAK LOAD	926	905	853	853	908	984	1084	1084	1006	983	917	917	917	940
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
T FALLS ADJ	-15													
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	57	57	57	57	57	57	57	57	57	57	57	57	57	57
UTAH(TRADE H3)	-60	-60												
*5 HANFORD	42	42	44	44	44	44	44	44	44	44	44	44	44	44
TOTAL RESOURCES	1125	1142	1204	1204	1203	1200	1200	1199	1193	1194	1194	1194	1197	1187
SURP OVER FIRM LOAD	199	237	351	351	295	216	116	115	187	211	277	277	280	247
RESERVES	153	153	153	153	153	153	153	153	153	153	153	153	153	153
INTERUP IN ABOVE RES	22	22	22	22	22	22	22	24	24	24	24	24	24	24
SURP OVER FIRM=TOTAL LOAD AND RESERVES	46	84	198	198	142	63	-37	-38	34	58	124	124	127	94
MAINTENANCE		27	66	76	10	23		8	14	192	78	82	168	165
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	46	57	132	122	132	40	-37	-46	20	-134	46	42	-41	-71
#7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20		-20	-20	-20	-40

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LDRES
PEAK=CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1977-78	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY	JUN
*1 FIRM PEAK LOAD	968	946	887	887	946	1025	1134	1134	1052	1029	1029	957	957	958	983
RESOURCES *3 *4															
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513	513
G FALLS ADJ															-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
DIESEL	3	3	3	3	3									3	3
BPA=50+WHEELING	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
*5 HANFORD	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
TOTAL RESOURCES	1202	1204	1204	1204	1203	1200	1200	1199	1193	1194	1194	1194	1194	1197	1187
SURP OVER FIRM LOAD	234	258	317	317	257	175	66	65	141	165	165	237	237	239	204
RESERVES	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
INTERUP IN ABOVE RES	24	24	24	24	24	24	24	25	25	25	25	25	25	25	25
SURP OVER FIRM=TOTAL LOAD AND RESERVES	81	105	164	164	104	22	-87	-88	-12	12	12	84	84	86	51
MAINTENANCE		27	66	10	11	12		8	14	20	82	78	3	183	165
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	81	78	98	154	93	10	-87	-96	-26	-8	-70	6	81	-97	-114
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS

LOADS AND RESOURCES — 370/LDRES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1978-79	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY1	MAY2	JUN
*1 FIRM PEAK LOAD	1012	989	922	985	1068	1197	1187	1101	1078	1001	1002	1002	1029
RESOURCES *3 *4													
HYDRO	518	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ													-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3							3	3	3
BPA=50+WHEELING	57	57	57	57	57	57	57	57	57	57	57	57	57
*5 HANFORD	44	44	45	45	45	45	45	45	45	45	45	45	45
TOTAL RESOURCES	1412	1414	1415	1414	1411	1411	1410	1404	1405	1405	1408	1403	1398
SURP OVER FIRM LOAD	400	425	493	429	343	224	223	303	327	404	406	406	369
RESERVES	185	185	185	185	185	185	185	185	185	185	185	185	185
INTERUP IN ABOVE RES	25	25	25	25	25	25	26	26	26	26	26	26	26
SURP OVER FIRM=TOTAL LOAD AND RESERVES	215	240	308	244	158	39	38	118	142	219	221	221	184
MAINTENANCE		27	66	11	12		8	14	82	198	213	213	213
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	215	213	242	233	146	39	30	104	60	21	8	8	-29
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LDRES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

*** COLSTRIP UNITS NO. 3 & NO. 4 EACH SLIPPED ONE YEAR***

1978-79	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY1	MAY2	JUN
*1 FIRM PEAK LOAD	1012	989	922	985	1068	1187	1187	1101	1078	1001	1002	1002	1029
RESOURCES *3 *4													
HYDRO	518	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ													-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	130	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165
DIESEL	3	3	3	3							3	3	3
BPA=50+WHEELING	57	57	57	57	57	57	57	57	57	57	57	57	57
*5 HANFORD	44	44	45	45	45	45	45	45	45	45	45	45	45
TOTAL RESOURCES	1202	1204	1205	1204	1201	1201	1200	1194	1195	1195	1198	1198	1198
SURP OVER FIRM LOAD	190	215	283	219	133	14	13	93	117	194	196	196	159
RESERVES	153	153	153	153	153	153	153	153	153	153	153	153	153
INTERUP IN ABOVE RES	25	25	25	25	25	25	26	26	26	26	26	25	26
SURP OVER FIRM=TOTAL LOAD AND RESERVES	37	62	130	66	-20	-139	-140	-60	-36	41	43	43	6
MAINTENANCE		27	66	11	12		8	14	12	78	73	183	165
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	37	35	64	55	-32	-139	-148	-74	-48	-37	-30	-140	-159
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

SLIPPED

MONTANA POWER COMPANY 02/01/74 RCS

LOADS AND RESOURCES 370/LDRES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

	1979-80	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1	FIRM PEAK LOAD	1060	1035	960	960	1027	1114	1242	1242	1152	1123	1128	1045	1047	1077
	RESOURCES *3 *4														
	HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
	G FALLS ADJ														-10
	BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
	CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6	COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6	COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
	COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
	COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
	DIESEL	3	3	3	3	3								3	3
	BPA=50+WHEELING	58	58	58	58	58	58	58	58	58	58	58	58	58	58
*5	HANFORD	45	45	46	46	46	46	46	46	46	46	46	46	46	46
	TOTAL RESOURCES	1624	1626	1627	1627	1626	1623	1623	1622	1616	1617	1617	1617	1620	1610
	SURP OVER FIRM LOAD	564	591	667	667	599	509	381	380	464	489	489	572	573	533
	RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
	INTERUP IN ABOVE RES	26	26	26	26	26	26	26	28	28	28	28	28	28	28
	SURP OVER FIRM=TOTAL LOAD AND RESERVES	347	374	450	450	382	292	164	163	247	272	272	355	356	316
	MAINTENANCE	165	27	66	10	11	12		8	14	20	82	186	213	210
	SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	182	347	384	440	371	280	164	155	233	252	190	169	143	106
*7	CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RGS
LOADS AND RESOURCES — 370/LORES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON
*** COLSTRIP UNITS NO. 3 & NO. 4 EACH SLIPPED ONE YEAR***

1979-80	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1060	1035	960	960	1027	1114	1242	1242	1152	1128	1128	1045	1047	1077
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	58	58	58	58	58	58	58	58	58	58	58	58	58	58
*5 HANFORD	45	45	46	46	46	46	46	46	46	46	46	46	46	46
TOTAL RESOURCES	1414	1416	1417	1417	1416	1413	1413	1412	1406	1407	1407	1407	1410	1400
SURP OVER FIRM LOAD	354	381	457	457	389	299	171	170	254	279	279	362	363	323
RESERVES	185	185	185	185	185	185	185	185	185	185	185	185	185	185
INTERUP IN ABOVE RES	26	26	26	26	26	26	26	28	28	28	28	28	28	28
SURP OVER FIRM=TOTAL LOAD AND RESERVES	169	196	272	272	204	114	-14	-15	69	94	94	177	178	138
MAINTENANCE		27	66	66	11	12		8	14	82	82	198	213	213
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	169	169	206	206	193	102	-14	-23	55	12	12	-21	-35	-75
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

SLIPPED

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LORES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1980-81	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1108	1082	998	998	1069	1161	1300	1300	1205	1132	1182	1093	1095	1128
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	155	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	155	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	58	58	58	58	58	58	58	58	58	58	58	58	58	58
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1659	1661	1661	1661	1660	1657	1657	1656	1650	1651	1651	1651	1654	1644
SURP OVER FIRM LOAD	551	579	663	663	591	496	357	356	444	469	469	558	559	516
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	28	28	28	28	28	28	28	29	29	29	29	29	29	29
SURP OVER FIRM=TOTAL LOAD AND RESERVES	334	362	446	446	374	279	140	139	227	252	252	341	342	299
MAINTENANCE	210	192	66	10	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	124	170	380	436	363	267	140	131	213	232	170	155	129	89
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LORES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1981-82	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1161	1133	1039	1039	1115	1211	1362	1362	1264	1239	1239	1143	1146	1182
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	58	58	58	58	58	58	58	58	58	58	58	58	58	58
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1659	1661	1661	1661	1660	1657	1657	1656	1650	1651	1651	1651	1654	1644
SURP OVER FIRM LOAD	498	528	622	622	545	446	295	294	386	412	412	508	508	462
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	29	29	29	29	29	29	29	31	31	31	31	31	31	31
SURP OVER FIRM=TOTAL LOAD AND RESERVES	281	311	405	405	328	229	78	77	169	195	195	291	291	245
MAINTENANCE	165	27	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	116	284	339	339	317	217	78	69	155	175	113	105	78	35
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS

LOADS AND RESOURCES — 370/LORES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1982-83	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1216	1187	1082	1082	1163	1264	1426	1426	1324	1298	1298	1195	1199	1238
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	59	59	59	59	59	59	59	59	59	59	59	59	59	59
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1660	1662	1662	1662	1661	1658	1658	1657	1651	1652	1652	1652	1655	1645
SURP OVER FIRM LOAD	444	475	580	580	498	394	232	231	327	354	354	457	456	407
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	31	31	31	31	31	31	31	32	32	32	32	32	32	32
SURP OVER FIRM=TOTAL LOAD AND RESERVES	227	258	363	363	281	177	15	14	110	137	137	240	239	190
MAINTENANCE	165	192	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	62	66	297	297	270	165	15	6	96	117	55	54	26	-20
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1983-84	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1273	1243	1127	1127	1213	1318	1494	1494	1387	1361	1361	1251	1255	1298
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA+50+WHEELING	59	59	59	59	59	59	59	59	59	59	59	59	59	59
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1660	1662	1662	1662	1661	1658	1658	1657	1651	1652	1652	1652	1655	1645
SURP OVER FIRM LOAD	387	419	535	535	448	340	164	163	264	291	291	401	400	347
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	32	32	32	32	32	32	32	34	34	34	34	34	34	34
SURP OVER FIRM=TOTAL LOAD AND RESERVES	170	202	318	319	231	123	-53	-54	47	74	74	184	183	130
MAINTENANCE	165	192	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	5	10	252	252	220	111	-53	-62	33	54	-8	-2	-30	-80
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS

LOADS AND RESOURCES — 370/LDRES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1984-85	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1334	1302	1174	1174	1265	1376	1565	1565	1454	1427	1427	1308	1313	1360
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	59	59	59	59	59	59	59	59	59	59	59	59	59	59
*5 HANFORD	80	80	90	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1660	1662	1662	1662	1661	1658	1658	1657	1651	1652	1652	1652	1655	1645
SURP OVER FIRM LOAD	326	360	488	488	396	282	93	92	197	225	225	344	342	285
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	34	34	34	34	34	34	34	36	36	36	36	36	36	36
SURP OVER FIRM=TOTAL LOAD AND RESERVES	109	143	271	271	179	65	-124	-125	-20	8	8	127	125	68
MAINTENANCE	165	192	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	-56	-49	205	205	168	53	-124	-133	-34	-12	-74	-59	-88	-142
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1985-86	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1398	1365	1223	1223	1320	1436	1641	1641	1524	1498	1498	1370	1376	1427
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	60	60	60	60	60	60	60	60	60	60	60	60	60	60
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1661	1663	1663	1663	1662	1659	1659	1658	1652	1653	1653	1653	1656	1646
SURP OVER FIRM LOAD	263	298	440	440	342	223	18	17	128	155	155	283	280	219
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	36	36	36	36	36	36	36	38	38	38	38	38	38	38
SURP OVER FIRM=TOTAL LOAD AND RESERVES	46	81	223	223	125	6	-199	-200	-89	-62	-62	66	63	2
MAINTENANCE	165	192	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	-119	-111	157	157	114	-6	-199	-208	-103	-82	-144	-120	-150	-208
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1986-87	JUL	AUG	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1466	1431	1275	1275	1378	1500	1721	1721	1599	1572	1572	1435	1442	1497
RESOURCES *3 *4														
HYDRO	518	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ														-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3								3	3
BPA=50+WHEELING	60	60	60	60	60	60	60	60	60	60	60	60	60	60
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1661	1663	1663	1663	1662	1659	1659	1658	1652	1653	1653	1653	1656	1646
SURP OVER FIRM LOAD	195	232	388	388	284	159	-62	-63	53	81	81	218	214	149
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	38	38	38	38	38	38	38	40	40	40	40	40	40	40
SURP OVER FIRM+TOTAL LOAD AND RESERVES	-22	15	171	171	67	-58	-279	-280	-164	-136	-136	1	-3	-68
MAINTENANCE	165	192	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	-187	-177	105	105	56	-70	-279	-288	-178	-156	-218	-185	-216	-278
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS

LOADS AND RESOURCES — 370/LDRES

PEAK-CRITICAL & MEDIAN WATER WITH HANFORD/80MW PK & 68MW EN FROM JULY 1980 ON

1987-88	JUL	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR	MAY	JUN
*1 FIRM PEAK LOAD	1537	1501	1501	1329	1329	1439	1566	1804	1804	1676	1649	1649	1502	1510	1570
RESOURCES *3 *4															
HYDRO	518	520	520	520	520	519	519	519	518	512	513	513	513	513	513
G FALLS ADJ															-10
BIRD	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
CORETTE	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
DIESEL	3	3	3	3	3	3								3	3
*8 BPA=50+WHEELING	60	60													
*5 HANFORD	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
TOTAL RESOURCES	1661	1663	1603	1603	1603	1602	1599	1599	1598	1592	1593	1593	1593	1596	1586
SURP OVER FIRM LOAD	124	162	102	274	274	163	33	-205	-206	-84	-56	-56	91	86	16
RESERVES	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217
INTERUP IN ABOVE RES	40	40	40	40	40	40	40	40	42	42	42	42	42	42	42
SURP OVER FIRM=TOTAL LOAD AND RESERVES	-93	-55	-115	57	57	-54	-184	-422	-423	-301	-273	-273	-126	-131	-201
MAINTENANCE	165	192	26	66	66	11	12		8	14	20	82	186	213	210
SURP OVER FIRM=TOTAL LOAD,RES,AND MAINT	-258	-247	-141	-9	-9	-65	-196	-422	-431	-315	-293	-355	-312	-344	-411
*7 CORETTE DERATING FOR SELLING	-40	-40	-40	-40	-40	-20	-20	-20	-20	-20	-20	-20	-20		-40

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 63MW ENERGY FROM JULY 1980 ON

1973-74	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB1	FEB2	MAR1	MAR2	APR1	APR2	MAY	JUN	AVG
*1 FIRM EN LOAD	569	569	566	566	550	550	565	585	632	648	612	612	601	601	579	578	568	579	59[illegible]
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	364	347	347	334	334	337	351	337
BIRD																		70	6
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
BPA=40+WHEELING	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
*2 OFFSETS			67	67	70	70													11
WWP (HAN TRADE)	-50	-50	-50	-50	-38	-38	-38	-38	-38	-38	-38	-33	-38	-38	-38	-38	-38	-38	-40
PAC (PUMI)	17	17	17	17	17	17	58	44	44	44	44	44	44	17	21	45	45	45	37
UTAH(TRADE H3)																		35	3
PUGET					-70	-70	-106	-84	-60	-42	-55	-55	-14	-14	-53				-3[illegible]
*5 HANFORD	98	98	98	98	37	37	37	37	37	37	37	37	37	37	37	37	37	37	47
TOTAL RESOURCES	575	575	593	593	487	487	507	524	569	591	564	564	588	561	513	590	593	693	59[illegible]
SURP OVER FIRM LOAD WITH CRITICAL WATER	6	6	27	27	-63	-63	-58	-61	-63	-57	-48	-48	-13	-40	-65	12	25	114	-1[illegible]
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	36	45	45	27	27	120	112	52
GT FALLS ADJ																		-10	-1
TH FALLS ADJ	-8	-8															-15	-15	-3
RESERVES	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
INTERUP IN ABOVE RES	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
ADDTNL INTERRUPTIBLE	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5
SURP OVER TOTAL LOAD AND,RES W/MED WATER	22	22	53	53	-71	-71	-18	-24	-32	-37	-29	-29	15	-12	-55	22	113	164	12
MAINTENANCE			4	3	13	10	4	1			3	4	4	10	9	3	6	144	16
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	22	22	49	45	-84	-81	-22	-25	-32	-37	-32	-33	11	-22	-64	19	107	40	-4
--CRITICAL WATER	-10	-10	7	3	-92	-89	-78	-78	-75	-74	-68	-69	-34	-67	-91	-8	2	-47	-52
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	-6	-6	11	7	-88	-85	-74	-74	-75	-69	-63	-64	-29	-62	-86	-3	7	-42	-47
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5		-3

MONTANA POWER COMPANY — 02/01/74 PCS
LOADS AND RESOURCES — 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 684N ENERGY FROM JULY 1980 ON

1974-75	JUL1	JUL2	AUG1	AUG2	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY1	MAY2	JUN1	JUN2	AVG
*1 FIRM EN LOAD	596	596	596	596	603	616	647	693	715	679	668	643	643	632	632	645	645	645
RESOURCES *3 *4																		
*9 HYDRO-CRITICAL	317	317	268	268	278	344	353	374	378	364	347	334	334	337	337	351	351	337
BIRD														70	70			6
*7 CORETTE	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	144	144	157
BPA=40+WHEELING	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
*2 OFFSETS			67	67	70													11
WWP (HAN TRADE)	-38	-38	-33	-38	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-14
PAC (PUMI)	45	45	45	45	45													11
UTAH(TRADE H2)						10	15	45	60	30	35	30	30	30	30			21
UTAH(TRADE H3)								25	25					35	35		-30	6
PUGET														75	-80		40	1
*5 HANFORD	37	37	37	37	31	31	31	31	25	25	25	25	25	25	25	25	25	29
HANFORD 5-MILL					48	44	46	46	51	52	42	55	55	65	65	42	42	41
TOTAL RESOURCES	554	554	572	572	650	626	642	713	736	668	646	641	641	834	679	596	606	651
SURP OVER FIRM LOAD WITH CRITICAL WATER	-42	-42	-24	-24	47	10	-5	20	18	-11	-22	-2	-2	202	47	-49	-39	6
MEDIAN ADDER	40	40	42	42	8	56	53	47	37	36	45	27	27	120	120	112	112	52
GT FALLS ADJ																-10	-10	-1
TH FALLS ADJ	-8	-8												-15	-15	-15	-15	-3
RESERVES	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
INTERUP IN ABOVE RES	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
ADDNTL INTERRUPTIBLE	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
SURP OVER TOTAL LOAD AND,RES W/MED WATER	-27	-27	1	1	38	49	31	50	37	7	5	7	7	289	134	20	30	36
MAINTENANCE		6	6	5	11	7	2			4	4	5	4	130	67	7	11	12
SURP OVER TOTAL LOAD RES AND MAINT WITH																		
--MEDIAN WATER	-27	-33	-5	-4	27	42	29	50	37	3	1	2	3	159	67	13	19	24
--CRITICAL WATER	-59	-65	-47	-46	19	-14	-24	3		-33	-44	-25	-24	54	-38	-74	-68	-24
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	-54	-60	-42	-41	24	-9	-19	8	6	-27	-38	-19	-18	60	-32	-68	-62	-19
*7 CORETTE DERATING FOR SELLING						-5	-5	-5	-5	-5	-5	-5	-5		-5			-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 63MW ENERGY FROM JULY 1980 ON

1975-76	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY1	MAY2	JUN1	JUN2	A.A.
*1 FIRM EN LOAD	694	694	690	690	672	672	686	720	779	795	754	743	716	716	704	704	719	719	723
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	334	334	337	337	351	351	337
BIRD															70	70	70	70	12
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	144	144	157
*6 COLSTRIP NO 1	83	83	83	83	83	83	165	165	165	165	165	165	165	165	165	165	165	165	145
BPA=40+WHEELING	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	5
*2 OFFSETS			67	67	70	70													1
WWP (HAN TRADE)	-15	-15	-15	-15															-2
UTAH(TRADE H3)	-30	-30	-30	-30					30	30	15				30	30		-60	4
PUGET	40	40	10	10			-30	-40									40	90	4
*5 HANFORD	25	25	25	25															4
HANFORD 5-MILL	30	30	27	27															3
TOTAL RESOURCES	644	644	629	629	625	625	692	691	782	786	757	725	712	712	815	815	820	810	723
SURP OVER FIRM LOAD WITH CRITICAL WATER	-50	-50	-61	-61	-47	-47	6	-29	3	-9	3	-18	-4	-4	111	111	101	91	
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	27	27	120	120	112	112	52
GT FALLS ADJ																	-10	-10	-1
TH FALLS ADJ	-8	-8													-15	-15	-15	-15	-3
RESERVES	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
INTERUP IN ABOVE RES	18	18	18	18	18	18	18	18	18	19	19	19	19	19	19	19	19	19	19
SURP OVER TOTAL LOAD AND RES W/MED WATER	-39	-39	-40	-40	-60	-60	41	3	25	7	18	6	2	2	195	195	167	157	27
MAINTENANCE	10	2	4	4	6	6		1		2	7	6	5	6	163	165	165	165	21
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	-49	-41	-44	-44	-66	-66	41	2	25	5	11		-3	-4	32	30	2	-8	-4
--CRITICAL WATER	-81	-73	-86	-86	-74	-74	-15	-51	-18	-32	-25	-45	-30	-31	-73	-75	-85	-95	-51
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	-81	-73	-86	-86	-74	-74	-15	-51	-18	-32	-25	-45	-30	-31	-73	-75	-85	-95	-51
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5		-5			-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1976-77	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY	JUN	AVG
*1 FIRM EN LOAD	723	723	719	719	700	700	714	750	814	832	737	770	747	747	735	751	754
RESOURCES *3 *4																	
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	334	334	337	351	337
BIRD												70			70	70	18
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	83	83	83	83	83	83	165	165	165	165	165	165	165	165	165	165	145
BPA=40+WHEELING	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
UTAH(TRADE H3)	-60	-60	-60	-60													-10
PUGET							-35	-30									-5
TOTAL RESOURCES	699	699	650	650	720	720	852	866	917	921	907	960	877	877	950	945	895
SURP OVER FIRM LOAD WITH CRITICAL WATER	-24	-24	-69	-69	20	20	138	116	103	89	120	184	130	130	215	194	101
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	27	27	120	112	52
GT FALLS ADJ																-10	-1
TH FALLS ADJ	-8	-8															-1
RESERVES	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
INTERUP IN ABOVE RES	19	19	19	19	19	19	19	19	19	20	20	20	20	20	20	20	20
SURP OVER TOTAL LOAD AND RES W/MED WATER	-22	-22	-57	-57	-2	-2	164	139	120	96	126	199	127	127	305	266	122
MAINTENANCE			4	5	6	2	8	5		1	4	152	10	4	163	165	43
SURP OVER TOTAL LOAD RES AND MAINT WITH																	
--MEDIAN WATER	-22	-22	-61	-62	-8	-4	156	134	120	95	122	47	117	123	137	101	79
--CRITICAL WATER	-54	-54	-103	-104	-16	-12	100	81	73	58	86	2	90	96	17	-1	28
SURP OVER FIRM LOAD RES,MAINT W/CRIT H20	-54	-54	-103	-104	-16	-12	100	81	73	58	86	2	90	96	17	-1	26
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5		-5	-5	-5		-3

MONTANA POWER COMPANY 02/01/74 BCS
LOADS AND RESOURCES 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 65MW ENERGY FROM JULY 1980 ON

1977-78	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY	JUN	AVG
*1 FIRM EN LOAD	754	754	750	750	729	729	743	782	850	869	820	809	809	779	779	766	784	786
RESOURCES *3 *4																		
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	373	364	347	347	334	334	337	351	337
BIRD																70	70	12
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
BPA=40+WHEELING	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
TOTAL RESOURCES	842	842	793	793	803	803	888	897	918	922	908	891	891	878	878	951	960	886
SURP OVER FIRM LOAD																		
WITH CRITICAL WATER	88	88	43	43	74	74	145	115	68	53	88	82	82	99	99	185	162	100
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	112	52
GT FALLS ADJ																	-10	-1
RESERVES	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
INTERUP IN ABOVE RES	20	20	20	20	20	20	20	20	20	21	21	21	21	21	21	21	21	21
SURP OVER TOTAL LOAD																		
AND RES W/MED WATER	98	98	55	55	52	52	171	133	85	60	94	97	97	96	96	275	234	121
MAINTENANCE			4	5	6	8	8	2		1	4	3	4	8	1	167	165	31
SURP OVER TOTAL LOAD																		
RES AND MAINT WITH																		
--MEDIAN WATER	98	98	51	50	46	44	163	135	85	59	90	89	93	88	95	108	69	91
--CRITICAL WATER	58	58	9	8	38	36	107	83	38	22	54	44	48	61	68	-12	-33	39
SURP OVER FIRM LOAD																		
RES, MAINT W/CRIT H2O	58	58	9	8	38	36	107	83	38	22	54	44	48	61	68	-12	-33	39
*7 CORETTE DERATING																		
FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5	-2		-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1978-79	JUL1	JUL2	AUG1	AUG2	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	786	786	782	782	758	772	815	883	909	856	845	814	814	799	799	810	820
RESOURCES *3 *4																	
*9 HYDRO-CRITICAL	317	317	268	268	278	344	353	374	378	364	347	334	334	337	337	351	337
BIRD													70	70	70	70	15
*7 CORETTE	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	105	105	105	105	105	210	210	210	210	210	210	210	210	210	210	210	184
BPA=40+WHEELING	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
TOTAL RESOURCES	947	947	898	898	908	1098	1107	1123	1132	1113	1101	1038	1158	1161	1161	1156	1073
SURP OVER FIRM LOAD																	
WITH CRITICAL WATER	161	161	116	116	150	326	292	240	223	262	256	274	344	362	362	337	253
MEDIAN ADDER	40	40	42	42	8	56	53	47	37	36	45	27	27	120	120	112	52
GT FALLS ADJ																-10	-1
RESERVES	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
INTERUP IN ABOVE RES	21	21	21	21	21	21	21	21	22	22	22	22	22	22	22	22	22
SURP OVER TOTAL LOAD AND RES W/MED WATER	159	159	116	116	116	340	303	245	218	256	252	259	329	440	440	397	260
MAINTENANCE			4	5	6	8	2		1	4	4	10	171	182	213	190	43
SURP OVER TOTAL LOAD RES AND MAINT WITH																	
--MEDIAN WATER	159	159	112	111	110	332	301	245	217	252	255	249	158	258	227	201	219
--CRITICAL WATER	119	119	70	69	102	276	248	198	180	216	210	222	131	138	107	99	168
SURP OVER FIRM LOAD RES,MAINT W/CRIT H20	119	119	70	69	102	276	248	198	180	216	210	222	131	138	107	99	168
*7 CORETTE DERATING FOR SELLING						-5	-5	-5	-5	-5	-5	-5	-5	-5			-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 63MW ENERGY FROM JULY 1980 ON

COLSTRIP UNITS NO. 3 & NO. 4 EACH SLIPPED ONE YEAR

1978-79	JUL1	JUL2	AUG1	AUG2	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	786	786	782	782	758	772	815	888	909	856	845	814	814	799	799	819	820
RESOURCES *3 *4																	
*9 HYDRO-CRITICAL	317	317	268	268	278	344	353	374	373	364	347	334	334	337	337	351	337
BIRD													70	70	70	70	15
*7 CORETTE	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
BPA=40+WHEELING	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
TOTAL RESOURCES	842	842	793	793	803	888	897	918	922	908	891	878	948	951	951	946	889
SURP OVER FIRM LOAD WITH CRITICAL WATER	56	56	11	11	45	116	82	30	13	52	46	64	134	152	152	127	69
MEDIAN ADDER	40	40	42	42	8	56	53	47	37	36	45	27	27	120	120	112	52
GT FALLS ADJ																-10	-1
RESERVES	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
INTERUP IN ABOVE RES	21	21	21	21	21	21	21	21	22	22	22	22	22	22	22	22	22
SURP OVER TOTAL LOAD AND RES W/MED WATER	66	66	23	23	23	142	105	47	20	58	61	61	131	242	242	199	90
MAINTENANCE			4	5	6	8	2		1	4	4	10	8	3	166	166	24
SURP OVER TOTAL LOAD RES AND MAINT WITH																	
--MEDIAN WATER	66	66	19	18	17	134	103	47	19	54	57	51	123	239	76	33	66
--CRITICAL WATER	26	26	-23	-24	9	78	50		-13	18	12	24	96	119	-44	-69	15
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	26	26	-23	-24	9	78	50		-13	18	12	24	96	119	-44	-69	15
*7 CORETTE DERATING FOR SELLING						-5	-5	-5	-5	-5	-5	-5	-5	-5			-3

SLIPPED

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1979-80	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	820	820	816	816	790	790	804	850	930	953	895	884	884	851	851	835	835	857	857
RESOURCES .*3 *4																			
*9 HYDRO-CRITICAL	317	317	263	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70													70	70	70	70	20
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	105	105	105	105	105	105	210	210	210	210	210	210	210	210	210	210	210	210	184
BPA=40+WHEELING	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
TOTAL RESOURCES	1228	1228	1109	1109	1119	1119	1309	1318	1339	1343	1329	1312	1312	1299	1369	1372	1372	1367	1290
SURP OVER FIRM LOAD WITH CRITICAL WATER	408	408	293	293	329	329	505	468	409	390	434	428	428	448	518	537	537	510	433
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	22	22	22	22	22	22	22	22	22	23	23	23	23	23	23	23	23	23	23
SURP OVER TOTAL LOAD AND RES W/MED WATER	394	394	281	281	283	283	507	467	402	373	416	419	419	421	491	603	603	556	430
MAINTENANCE	165	165	4	5	6	8	8	2		1	4	8	4	8	167	197	213	210	56
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	229	229	277	276	277	275	499	465	402	372	412	411	415	413	324	406	390	343	372
--CRITICAL WATER	189	189	235	234	269	267	443	412	355	335	376	366	370	386	297	286	270	246	321
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	189	189	235	234	269	267	443	412	355	335	376	366	370	386	297	286	270	246	321
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 PCS
LOADS AND RESOURCES 370/LORES

AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

*** COLSTRIP UNITS NO. 3 & NO. 4 EACH SLIPPED ONE YEAR***

1979-80	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	820	820	816	816	790	790	804	850	930	953	875	884	884	851	851	835	835	857	857
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	327
BIRD	70	70													70	70	70	70	20
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	105	105	105	105	105	105	210	210	210	210	210	210	210	210	210	210	210	210	184
BPA=40+WHEELING	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
TOTAL RESOURCES	1018	1018	899	899	909	909	1099	1108	1129	1133	1119	1102	1102	1089	1159	1162	1162	1157	1090
SURP OVER FIRM LOAD WITH CRITICAL WATER	198	198	83	83	119	119	295	258	199	180	224	218	218	238	309	327	327	300	223
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
INTERUP IN ABOVE RES	22	22	22	22	22	22	22	22	22	23	23	23	23	23	23	23	23	23	23
SURP OVER TOTAL LOAD AND RES W/MED WATER	196	196	83	83	85	85	309	269	204	175	218	221	221	223	293	405	405	360	232
MAINTENANCE			4	5	6	6	8	2		1	4	4	4	10	171	192	213	196	43
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	196	196	79	78	79	79	301	267	204	174	214	217	217	213	122	223	192	164	189
--CRITICAL WATER	156	156	37	36	71	71	245	214	157	137	178	172	172	186	95	103	72	62	138
SURP OVER FIRM LOAD RES, MAINT W/CRIT H2O	156	156	37	36	71	71	245	214	157	137	178	172	172	186	95	103	72	62	138
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

SLIPPED

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1980-81	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	856	856	852	852	824	824	839	838	973	997	935	924	924	889	889	872	872	896	895
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1401	1401	1352	1282	1292	1292	1377	1386	1407	1411	1397	1380	1380	1367	1437	1440	1440	1435	1397
SURP OVER FIRM LOAD WITH CRITICAL WATER	545	545	500	430	468	468	538	498	434	414	462	456	456	478	548	568	568	539	492
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	23	23	23	23	23	23	23	23	23	24	24	24	24	24	24	24	24	24	24
SURP OVER TOTAL LOAD AND,RES W/MED WATER	531	531	488	418	422	422	540	497	427	397	444	447	447	451	521	634	634	587	489
MAINTENANCE	180	165	169	5	6	8	8	2		1	4	8	4	8	165	213	213	180	64
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	351	366	319	413	416	414	532	495	427	396	440	439	443	443	356	421	421	407	425
--CRITICAL WATER	311	326	277	371	408	406	476	442	380	359	404	394	398	416	329	301	301	305	374
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	311	326	277	371	408	406	476	442	380	359	404	394	398	416	329	301	301	305	374
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

*** COLSTRIP UNITS NO. 3 & NO. 4 EACH SLIPPED ONE YEAR***

1980-81	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AV
*1 FIRM EN LOAD	856	856	852	852	824	824	839	883	973	997	935	924	924	889	889	872	872	896	89
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	33
BIRD	70	70	70												70	70	70	70	2
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	153	163	163	163	163	163	163	144	15
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	16
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	16
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	21
COLSTRIP NO 4	105	105	105	105	105	105	210	210	210	210	210	210	210	210	210	210	210	210	18
BPA=40+WHEELING	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	5
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	6
TOTAL RESOURCES	1296	1296	1247	1177	1187	1187	1377	1386	1407	1411	1397	1380	1380	1367	1437	1440	1440	1435	138
SURP OVER FIRM LOAD WITH CRITICAL WATER	440	440	395	325	363	363	538	498	434	414	462	456	456	478	548	568	568	539	46
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	5
GT FALLS ADJ																		-16	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	5
INTERUP IN ABOVE RES	23	23	23	23	23	23	23	23	23	24	24	24	24	24	24	24	24	24	2
SURP OVER TOTAL LOAD AND, RES W/MED WATER	426	426	383	313	317	317	540	497	427	397	444	447	447	451	521	634	634	587	49
MAINTENANCE	180	165	159	5	6	8	8	2		1	4	8	4	8	165	213	213	180	8
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	246	261	214	308	311	309	532	495	427	396	440	439	443	443	356	421	421	407	33
--CRITICAL WATER	206	221	172	266	303	301	476	442	380	359	404	394	398	416	329	301	301	305	3
SURP OVER FIRM LOAD RES, MAINT W/CRIT H2O	206	221	172	266	303	301	476	442	380	359	404	394	398	416	329	301	301	305	3
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-2

SLIPPED

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 65MW ENERGY FROM JULY 1980 ON

1981-82	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	894	894	890	890	859	859	873	926	1013	1044	977	966	966	929	929	911	911	937	935
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70													70	70	70	70	20
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
*5 HANFORD	68	68	68	68	68	68	68	68	63	68	68	68	68	68	68	63	63	68	66
TOTAL RESOURCES	1402	1402	1283	1283	1293	1293	1378	1387	1403	1412	1398	1331	1381	1368	1438	1441	1441	1435	1399
SURP OVER FIRM LOAD WITH CRITICAL WATER	508	508	393	393	434	434	505	461	390	368	421	415	415	439	509	530	530	498	464
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	24	24	24	24	24	24	24	24	24	26	26	26	26	26	26	26	26	26	25
SURP OVER TOTAL LOAD AND,RES W/MED WATER	494	494	381	381	388	388	507	460	383	351	403	406	406	412	482	596	596	547	447
MAINTENANCE	165	103	4	5	6	8	8	2		1	4	8	4	3	165	132	213	203	54
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	329	391	377	376	382	380	499	453	383	350	399	398	402	404	317	414	383	344	392
--CRITICAL WATER	289	351	335	334	374	372	443	405	336	313	363	353	357	377	290	294	263	242	341
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	289	351	335	334	374	372	443	405	336	313	363	353	357	377	290	294	263	242	341
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 BCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1982-83	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	933	933	929	929	895	895	910	967	1066	1094	1022	1011	1011	971	971	953	953	981	975
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	373	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1402	1402	1353	1283	1293	1293	1378	1387	1408	1412	1393	1381	1391	1368	1438	1441	1441	1436	1388
SURP OVER FIRM LOAD WITH CRITICAL WATER	469	469	424	354	398	398	468	420	342	318	376	370	370	397	467	488	488	455	413
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	26	26	26	26	26	26	26	26	26	27	27	27	27	27	27	27	27	27	27
SURP OVER TOTAL LOAD AND RES W/MED WATER	455	455	412	342	352	352	470	419	335	301	358	361	361	370	440	554	554	503	432
MAINTENANCE	165	165	114	5	6	8	8	2		1	4	8	4	8	165	182	213	203	62
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	290	290	298	337	346	344	462	417	335	300	354	353	357	362	275	372	341	300	346
--CRITICAL WATER	250	250	256	295	333	336	406	364	288	263	318	303	312	335	240	252	221	198	295
SURP OVER FIRM LOAD RES, MAINT W/CRIT H2O	250	250	256	295	333	336	406	364	288	263	318	303	312	335	240	252	221	198	295
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 RCS

LOADS AND RESOURCES 370/LDRES

AVERAGE ENERGY WITH HANFORD AT 80MW PK & 63MW ENERGY FROM JULY 1980 ON

1983-84	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	975	975	971	971	934	934	949	1010	1117	1147	1069	1058	1058	1016	1016	996	996	1028	1023
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	373	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1403	1403	1354	1284	1294	1294	1379	1388	1409	1413	1309	1382	1362	1369	1439	1442	1442	1437	1386
SURP OVER FIRM LOAD																			
WITH CRITICAL WATER	428	428	383	313	360	360	430	378	292	266	330	324	324	353	423	446	446	409	367
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	27	27	27	27	27	27	27	27	27	29	29	29	29	29	29	29	29	29	28
SURP OVER TOTAL LOAD AND RES W/MED WATER	414	414	371	301	314	314	432	377	285	249	312	315	315	326	396	512	512	457	364
MAINTENANCE	165	165	114	5	6	3	8	2		1	4	8	4	8	165	182	213	203	62
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	249	249	257	296	308	306	424	375	285	248	308	307	311	318	231	330	299	254	302
--CRITICAL WATER	209	209	215	254	300	298	368	322	238	211	272	262	266	291	204	210	179	152	251
SURP OVER FIRM LOAD RES, MAINT W/CRIT H2O	209	209	215	254	300	298	368	322	238	211	272	262	266	291	204	210	179	152	251
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5	-5			-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 65MW ENERGY FROM JULY 1980 ON

1984-85	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	1019	1019	1016	1016	975	975	939	1055	1170	1201	1117	1107	1107	1062	1062	1041	1041	1076	1069
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1403	1403	1354	1284	1294	1294	1379	1383	1409	1413	1399	1382	1382	1369	1439	1442	1442	1437	1389
SURP OVER FIRM LOAD WITH CRITICAL WATER	384	384	338	268	319	319	390	333	239	212	282	275	275	307	377	401	401	361	320
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	29	29	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30
SURP OVER TOTAL LOAD AND RES W/MED WATER	370	370	326	256	273	273	392	372	232	195	264	266	266	280	350	467	467	409	317
MAINTENANCE	165	165	114	5	6	8	8	2		1	4	8	4	8	165	132	213	203	62
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	205	205	212	251	267	265	384	330	232	194	260	258	262	272	185	285	254	206	256
--CRITICAL WATER	165	165	170	209	259	257	328	277	185	157	224	213	217	245	153	165	134	104	204
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	165	165	170	209	259	257	328	277	185	157	224	213	217	245	159	165	134	104	204
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY — 02/01/74 RCS
LOADS AND RESOURCES — 370/LDEES
AVERAGE ENERGY WITH HANFORD AT 60MW PK & 68MW ENERGY FROM JULY 1980 ON

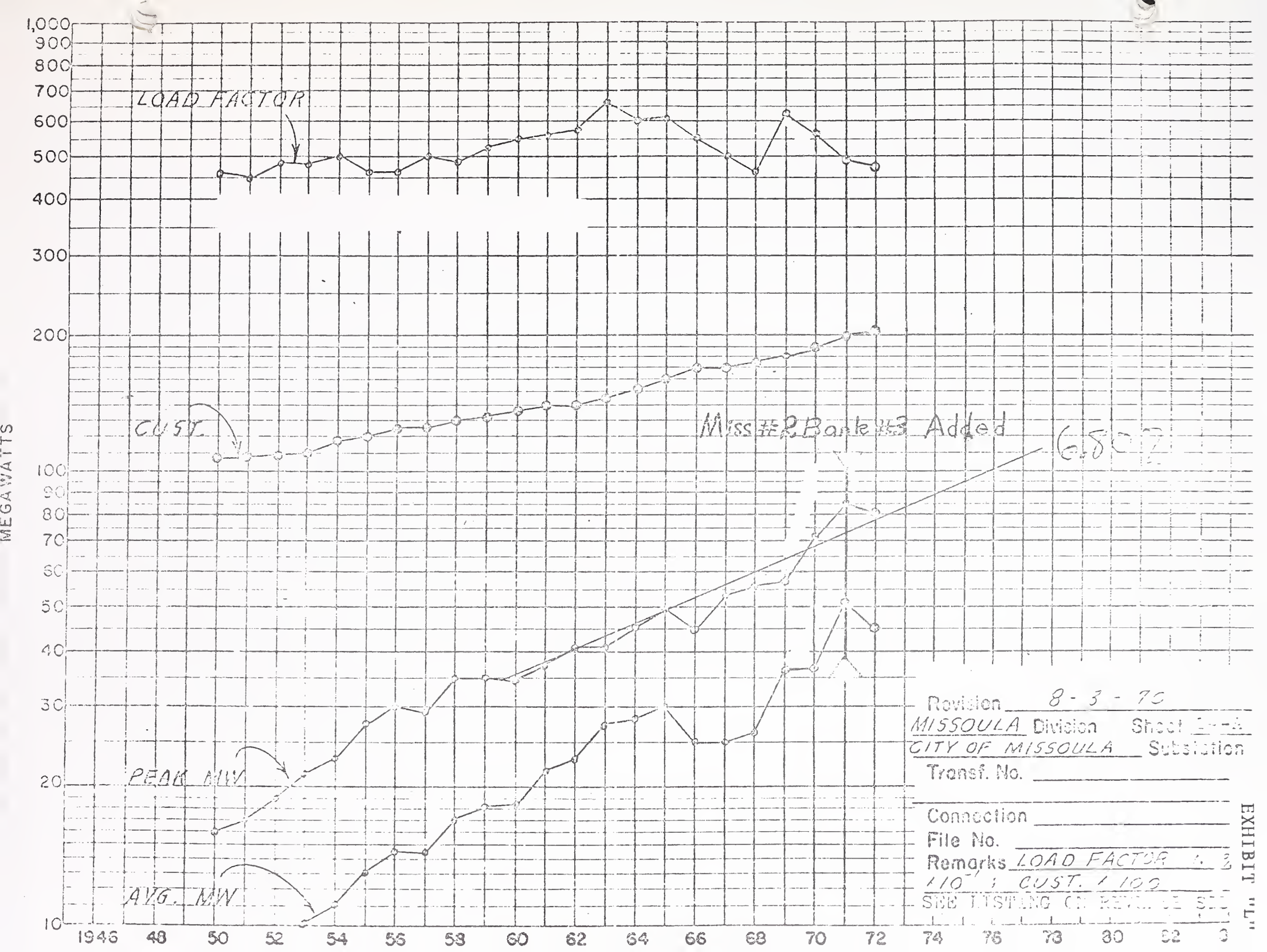
1985-86	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
#1 FIRM EN LOAD	1065	1065	1061	1061	1017	1017	1031	1102	1225	1260	1169	1159	1159	1112	1112	1089	1089	1127	1118
RESOURCES #3 #4																			
#9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
#7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
#6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
#6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
#5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1404	1404	1355	1285	1295	1295	1380	1389	1410	1414	1400	1383	1383	1370	1440	1443	1443	1438	1390
SURP OVER FIRM LOAD																			
WITH CRITICAL WATER	339	339	294	224	278	278	349	287	184	154	231	224	224	258	328	354	354	311	272
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	30	30	30	30	30	30	30	30	30	32	32	32	32	32	32	32	32	32	31
SURP OVER TOTAL LOAD																			
AND, RES W/MED WATER	325	325	282	212	232	232	351	286	177	137	213	215	215	231	301	420	420	359	269
MAINTENANCE	165	165	114	5	6	8	9	2		1	4	8	4	8	165	182	213	203	62
SURP OVER TOTAL LOAD																			
RES AND MAINT WITH																			
--MEDIAN WATER	160	160	168	207	226	224	343	284	177	136	209	207	211	223	136	238	207	156	207
--CRITICAL WATER	120	120	126	165	218	216	287	231	130	99	173	162	166	196	109	113	87	54	156
SURP OVER FIRM LOAD																			
RES, MAINT W/CRIT H2O	120	120	126	165	218	216	287	231	130	99	173	162	166	196	109	113	87	54	156
#7 CORETTE DERATING																			
FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LDRES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1986-87	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	1113	1113	1110	1110	1062	1062	1076	1152	1285	1321	1223	1214	1214	1164	1164	1139	1139	1181	1176
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	268	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1404	1404	1355	1285	1295	1295	1380	1389	1410	1414	1400	1383	1363	1370	1440	1443	1443	1438	1390
SURP OVER FIRM LOAD																			
WITH CRITICAL WATER	291	291	245	175	233	233	304	237	125	93	177	169	169	206	276	304	304	257	220
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33
SURP OVER TOTAL LOAD																			
AND RES W/MED WATER	277	277	233	163	187	187	306	236	118	76	159	160	160	179	249	370	370	305	217
MAINTENANCE	165	165	114	5	6	8	8	2		1	4	3	4	8	165	182	213	203	62
SURP OVER TOTAL LOAD																			
RES AND MAINT WITH																			
--MEDIAN WATER	112	112	119	158	181	179	298	234	118	75	155	152	156	171	84	138	157	102	155
--CRITICAL WATER	72	72	77	116	173	171	242	181	71	38	119	107	111	144	57	68	37		104
SURP OVER FIRM LOAD																			
RES,MAINT W/CRIT H2O	72	72	77	116	173	171	242	181	71	38	112	107	111	144	57	68	37		104
*7 CORETTE DERATING																			
FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3

MONTANA POWER COMPANY 02/01/74 RCS
LOADS AND RESOURCES 370/LORES
AVERAGE ENERGY WITH HANFORD AT 80MW PK & 68MW ENERGY FROM JULY 1980 ON

1987-88	JUL1	JUL2	AUG1	AUG2	SEP1	SEP2	OCT	NOV	DEC	JAN	FEB	MAR1	MAR2	APR1	APR2	MAY1	MAY2	JUN	AVG
*1 FIRM EN LOAD	1164	1164	1161	1161	1108	1108	1122	1204	1348	1387	1231	1273	1273	1219	1219	1193	1193	1233	1225
RESOURCES *3 *4																			
*9 HYDRO-CRITICAL	317	317	263	268	278	278	344	353	374	378	364	347	347	334	334	337	337	351	337
BIRD	70	70	70												70	70	70	70	23
*7 CORETTE	144	144	144	144	144	144	163	163	163	163	163	163	163	163	163	163	163	144	157
*6 COLSTRIP NO 1	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
*6 COLSTRIP NO 2	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
COLSTRIP NO 3	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
COLSTRIP NO 4	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
BPA=40+WHEELING	55	55	55	46															9
*5 HANFORD	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TOTAL RESOURCES	1404	1404	1355	1276	1240	1240	1325	1334	1355	1359	1345	1328	1328	1315	1385	1388	1388	1393	1344
SURP OVER FIRM LOAD WITH CRITICAL WATER	240	240	194	115	132	132	203	130	7	-28	64	55	55	96	166	195	195	145	119
MEDIAN ADDER	40	40	42	42	8	8	56	53	47	37	36	45	45	27	27	120	120	112	52
GT FALLS ADJ																		-10	-1
RESERVES	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
INTERUP IN ABOVE RES	33	33	33	33	33	33	33	33	33	35	35	35	35	35	35	35	35	35	34
SURP OVER TOTAL LOAD AND RES W/MED WATER	226	226	182	103	86	86	205	129		-45	46	46	46	69	139	261	261	193	116
MAINTENANCE	165	165	114	5	6	8	8	2		1	4	3	4	8	165	182	213	203	82
SURP OVER TOTAL LOAD RES AND MAINT WITH																			
--MEDIAN WATER	61	61	63	98	80	78	197	127		-46	42	38	42	61	-26	79	48	-10	55
--CRITICAL WATER	21	21	26	56	72	70	141	74	-47	-83	6	-7	-3	34	-53	-41	-72	-112	3
SURP OVER FIRM LOAD RES,MAINT W/CRIT H2O	21	21	26	56	72	70	141	74	-47	-83	6	-7	-3	34	-53	-41	-72	-112	3
*7 CORETTE DERATING FOR SELLING							-5	-5	-5	-5	-5	-5	-5	-5	-5		-5		-3


LOAD FACTOR
CUST.
Miss #2 Bank #3 Added
PEAK MW
AVG. MW
MEGAWATTS
1,000
900
800
700
600
500
400
300
200
100
90
80
70
60
50
40
30
20
10
1946
48
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82
Revision 8-3-70
MISSOULA Division Sheet
CITY OF MISSOULA Substation
Transf. No.
Connection
File No.
Remarks LOAD FACTOR
110 ; CUST. 1100
SEE LISTING ON REVERSE SIDE
EXHIBIT "L"

DIVISION MISSOULA — MONTHLY SUBSTATION REPORT — MONTH OF JAN-1973 — AMB 0 DEG C

FEB 15

LOCATION	VOLTAGE RATIO	KVA CAP	MAX KW	MIN KW	MAX KVAR	MIN KVAR	AVG KW	INPUT MWH		MAX KVA	L F	P F	PCT AMB	
HOERNER-WALDOR BK1	100-12.5	10000	7008	1728	3744	1104				7945		88	51	
HOERNER-WALDOR BK2	100-12.5	10000	7152	1680	4800P	1296				8613		83	56	* - MARK SENSE ERROR
HOERNER-WALDOR BK3	100-12.5	10000	7008	1680	4603	1200			B	8387		84	54	* - TRANSFORMER [illegible]
HRNR-WLDRF BKS 1&2	100-12.5	20000	14200				11508	8286.0R			81		51	* - ACTUAL MW
HOERNER WLDRF-TOTL	100-12.5	30000	21400				17233	12408.0			81		51	
MISS 1 BONNER LINE	100-44	6000					4239	2034.5						P - [illegible]
MISS 1 3.3 KV	100-3.3	12000	7250			B B	4927	2365.0			68		43	R - [illegible]
MISS 1 12.5 KV	100-12.5	10000	12750OP				9000	4320.0			7		911*	ALL [illegible] - FOR FIELD
MISS 2 BANK NO 1	100-12.5	14000	7440		1800	600	4675	2244.0		7655	63	97	39	B - FIELD LEFT BLANK
MISS 2 BANK NO 2	100-12.5	12500	14208		2400	768	8720	4185.6		14409	61	99	82	
MISS 2 BANK NO 3	100-12.5	20000	8904		3024	-840	5285	2536.8		9403	59	95	34	
MISS 2 BANK NO 3	100-69	15000	16376	6052	712	-2492				16391		100	70	
MISS 2 BANK NO 4	100-69	15000	17088	5696	712	-2136				17103		100	74	Temporarily disconnected
BITTERROOT ENERGY	100-69	30000	READINGS NOT REPORTED											
MISS 3 BANK NO 1	100-12.5	12500	5184		144		3255	1562.4		5186	63	100	30	
MISS 3 BANK NO 2	100-12.5	14000	13680	5400	9480	1440	9250	4440.0		16644	68	82	77	
RATTLESNAKE BK 1	161-100	75000	88561	21912	36520	12782				95795		92	91	
RATTLESNAKE BK 2	161-100	75000	54780		17347					57461		95	55	
KERR 'A' LINE	100-161	120000	63440	2440	-2440	-880				63487		100	38	
KERR 'B' LINE	100-161	120000	73200	4880	-1220	-3540				73210		100	44	
UNIV. OF MONTANA	12.5-3.3	3000												
UNIV. OF MONTANA	12.5		4344				2370	1706.4			55			
U.S.PLYWOOD-BONNER	DUAL-2.4	10500	5920		4560	-80	103367	74424.0R		7473	**	79	46	
MILLTOWN W/BPA	12.5		1484				839	604.8			60			
AVERY-MILW	100-2.4	5700												
ALBERTON	100-2.4	600	B				519	373.3						Demand just maximum
FRENCHTOWN W/BPA	100-12.5		3624				2303	1658.4			64			
CORVALLIS	69-12.5	2500	1200P				786	622.2			66		34	
CORVALLIS W/PPA	69	3750	4872				2642	1965.6			54		93	
CKF LUMBER CO	69-2.4	225												
DARBY	69-12.5	10000	7500	2000	2500	-500	4097	2950.0R		7906	55	95	51	
DARBY W/BPA	12.5		4872				2619	1948.8			54			
DIAMOND MATCH	100-12.5	3000	5640				3109	2536.8			55		134*	
DREXEL-MILW	100-2.4	5000												
EAST PORTAL-MILW	100-2.4	7500												
FLODIN LUMBER CO	50-2.4	1000	READINGS NOT REPORTED											
FLORENCE	69-7.2	650	558				328	235.8R			59		61	
GRANTSDALE W/BPA	69-12.5	1000	1015				542	403.2			53		73	
HAMILTON	69-4.16	5000	3136				1901	1414.4			61		45	
HAMILTON RURAL	69-12.5	2500	2208				203	151.2			9		63	

EXHIBIT "M"

EXHIBIT "N"

Study of Need for Additional Transmission Facilities In the Upper Yellowstone Valley Area (Including Yellowstone Park and the town of Gardiner) and the Big Sky Resort Area.

The electric load demands for the Big Sky Resort Complex have been estimated as follows by the Marketing Department of The Montana Power Company December 5, 1973.

Year	Meadow Village Substation	Mountain Village Substation	Total
1973	2,000 kW	4,000 kW	6,000 kW
1974	3,000 kW	6,000 kW	9,000 kW
1975	3,500 kW	11,000 kW	14,500 kW
1976	5,000 kW	14,500 kW	19,500 kW
1977	6,000 kW	19,000 kW	25,000 kW
1978	7,000 kW	23,000 kW	30,000 kW

Note:

There are other private developments that will add to the electrical demand. These developments have not established long range plans - January 28, 1974.

The increased electric loads in the Yellowstone Park area are as follows:

In Yellowstone Park, eleven locations are being considered for possible sewage treatment plants or lift/comfort stations. Of these eleven, five are firm and a request for electric service to be provided has been made. These five firm sites will require approximately 500 kW of additional electrical demand. Evaluation and consideration of electrical heat by the National Park Service for their buildings at Mammoth is also being considered. If the National Park Service were to request additional service at Mammoth for electric heat, the electrical demand at Mammoth would increase approximately 500 kW.

At present, tourist accommodations are restricted in Yellowstone Park. If additional tourist accommodations are not built in Yellowstone Park, then additional facilities will be required outside of the Park. An increase in electric load can be expected at Gardiner as additional tourist accommodations are required in the Yellowstone Park area.

Potential irrigation loads exist in the Upper Yellowstone Valley from Livingston to Gardiner. In March, 1973, the Inverness Land and Cattle Co. approached The Montana Power Company on providing electric service to four - 350 hp motors. Since that date, nothing further has been heard on their plans. The Holliday Land and Cattle Co. has indicated that an irrigation project of approximately 2000 hp is contemplated. Currently, their electric load will reach approximately 1000 hp in 1974.

The Emmigrant (formerly Chico) REA has had a rapid expansion in recent years. Their peak demand has increased from approximately 430 kW in 1969 to 1080 kW in 1972. Based on historical data their load growth is currently increasing at about 10.8% per year.

UPPER YELLOWSTONE VALLEY ELECTRIC LOADS
(In kilowatts)

Year	Chico REA	Gardiner	Mammoth	Yellowstone Park 50 kV excluding Mammoth
1973	1100	1250	1000	4300
1974	1200	1300	1100	4600
1975	1340	1370	1200	4950
1976	1500	1440	1300	5300
1977	1660	1510	1400	5700
1978	1820	1600	1530	6150
1979	2000	1690	1680	6600
1980	2300	1780	1860	7100

Using 1975 as the study year, voltage levels in the Yellowstone Park area and the Big Sky complex will reach unacceptably low values. Voltage levels will be as low as 80% of nominal in the Yellowstone Park area and as low as 81% of nominal for the Big Sky complex. To provide adequate voltage levels in the Yellowstone Park area and the Big Sky resort area, additional transmission line facilities will be needed to provide an adequate supply of electricity.

Exhibit "O"

Historical Sprinkler Irrigation Growth

Year	H. P. Added	Total
1968		19,609
1969	2,081	21,690
1970	2,743	24,433
1971	4,643	29,076
1972	4,292	33,368
1973	9,619	42,987
1974	12,500	55,487 (est.)

Source: Wm. Sherwood
MPCo. 4/1/74

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SMEAD—HASTINGS, MN
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